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JULY, 1882.

WE CAN ENDURE long winters, but it is an endurance. Hope lights up a view of spring in the distance, and that relieves the clouds that surround and oppress us in the dull season. How impatient we become at last for the ice-king to take his leave, and for the birds, and the verdure, and the flowers to return! How eagerly we search for the first flowers, those brave little fellows, unheeding frosty nights and mornings, who, far preceding, herald the appearance of the well filled ranks. When spring is long delayed, the desire to see again the well known plants and flowers bears with it something of the pain of longing for the sight of dear, absent friends. And when, at last, one by one, the well known forms return, how like the meeting of loved ones. Yes, dear reader, there is an exquisite pleasure in this acquaintance with Nature, a bond of sympathy, subtle yet strong, and we delight in the presence, the unfolding, and the apparent enjoyment of vegetation. The first flowers of spring-time are watched for and sought for, and even the *Symplocarpus* has a cordial greeting. Wherever it grows, the *Mayflower* or *Trailing Arbutus*, *Epigæa repens*, has the most numerous admirers. Of all the wild flowers of the North none has so much enthusiastic admiration bestowed upon it as this delicately tinted and sweet-scented blossom, and none is oftener

honored by the limner and by the poet. In the sense that the *Primrose* is the cherished wild plant of England, so is the *Trailing Arbutus* here. Of this beautiful plant probably no sweeter words have ever been written than the following by ROSE TERRY, one of our own true poets.

Darling of the forest!
Blossoming alone
When Earth's grief is sorest
For her jewels gone—

Ere the last snow-drift melts, your tender buds have
blown.

Tinged with color faintly,
Like the morning sky,
Or more pale and saintly,
Wrapped in leaves ye lie,

Even as children sleep in faith's simplicity.

There the wild wood-robin
Hymns your solitude,
And the rain comes sobbing
Through the budding wood,

While the low South wind sighs, but dare not be
more rude.

Were your lips fashioned
Out of air and dew;
Starlight unimpassioned,
Dawn's most tender hue—

And scented by the woods that gathered sweets for
you?

Fairest and most lovely,
From the world apart,
Made for beauty only,
Veiled from Nature's heart,

With such unconscious grace as makes the dream
of Art!

Were not mortal sorrow
 An immortal shade,
 Then would I to-morrow
 Such a flower be made,
 And live in the dear woods where my lost childhood
 played.

The leaves of this plant are evergreen, dark and rich. The flower-buds are formed in autumn, and when the weather is mild in the early winter they seem almost ready to burst; thus they stand expectant for the first soft airs of spring-time. As if to please some who are not satisfied with flowers as nature first exhibits them, but only when, by transformation of some of their parts, the number of petals is increased, these little blossoms are sometimes found double, as shown in the center cluster in the Colored Plate. The cultivation of the *Epigæa* has frequently been attempted with very unsatisfactory results, but success has been achieved often enough to show that this little plant is not wholly untractable to proper efforts. It is not, however, a plant that will ever come into the plant-dealer's trade and submit to handling and packing and transportation long or even short distances in the usual manner. It is a wild plant, and will remain essentially so. If you have a little grove, or a spot not too shady nor yet too open, near the trees, that may remain year after year undisturbed either by the lawn mower or the scythe, the rake or other gardening tools, and this spot is supplied with plenty of leaf mold, there in the early spring time some plants can be carried and set with reasonable hope of living. But they must be removed from their native spot with the greatest care, and with as much soil as possible attached to the roots. A good watering should be given them, and then they be left alone to repair damages in their own way. Under such conditions it is evident that a cultivated *Arbutus* will always be an unusually rare object, and no one will have one who does not want it. *Arbutus* hunting is the occasion for the first rural sortie of our young people. On these occasions may be collected in some places the *Wintergreen*, *Gaultheria procumbens*, with its globular red berries and its shining leaves, prized for their fragrance and spicy taste; and this plant is first cousin to the *Arbutus*, and their fellowship, who can doubt, is due to kinship. And who can tell us why the aroma of one is exhaled from the flowers

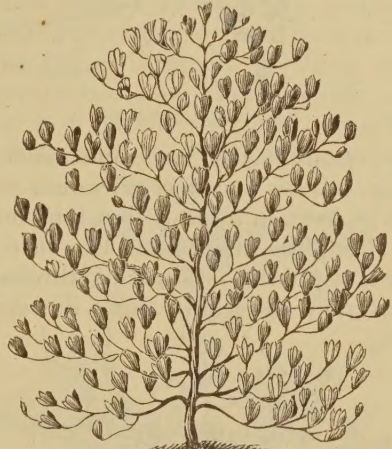
only, and of the other from the leaves? In some of the Eastern States and along the Atlantic coast the American Holly, *Ilex opaca*, flourishes, and retains its green leaves and bright red, oval berries through the winter; this serves to mingle with the early flowers when foliage is yet scarce, for these flowers bloom before the leaves have started. On the borders of the woods, and where the shade is not too dense, one of the first bright flowers is the *Liverleaf*, or *Liverwort*, *Hepatica triloba*. The leaf, from which this plant takes its name, is three-lobed, and often of a dark purplish hue on the under side. Like the others that have been noticed this, too, is an evergreen. The flowers, as may be noticed in those of the *Arbutus*, vary in tint from white to a pink, and frequently there are some with a bluish shade. Like the *Arbutus*, this also attempts the multiplication of its petals, and the bluish double flower beside the white one was found growing so naturally. This is not an uncommon feature with this plant; in fact, it is only showing a trait that is particularly developed in this natural order of plants. The name *Liverleaf* is well enough, but that of *Liverwort* belongs to another order of plants; there ought to be another good common name for it, and perhaps it will yet be better known as the *Liverleaf Anemone*, since it is to be known in future by botanists as it was first named by LINNÆUS, *Anemone Hepatica*. This plant takes to garden culture as kindly as the *Arbutus* persistently refuses it, and it is not at all necessary to provide it with shade. It will flourish and bloom in profusion year after year with the most indifferent attention; it is easily transplanted, and is a gem in the garden in early spring, showing its bloom before any other flowers make their appearance, except the little *Snow-drop* that appears in the plate just underneath it. One who has not hunted for native wild flowers in early spring will be surprised to learn how many make their appearance soon after those of the first *Arbutus* and *Liverleaf*. If we could only bring the various kinds together into the garden it would be greatly enriched and beautified at a time when, as usually seen, it is stark and poverty stricken. With the *Liverleaf* appears the little *Spring Beauty*, or *Claytonia*, of which there are two species, bearing, however, a close re-

semblance to each other. And then follow in quick succession many others, one of which is the Blood Root, *Sanguinaria Canadensis*, the large white flowers represented in the Plate. It is certainly very admirable and is capable of being employed to advantage, for it does not complain of removal from its wild haunts on the borders of the woods and along the fence sides. Now we might mention the *Trilliums* and *Erythroniums*, or Dog's Tooth Violets, the Bellworts, or *Uvularias*, the Toothworts, or Spring Cresses, the *Dicentras*, and many others. We have a wealth of native flowers, and many more of them should find places in the garden than usually do; but especially do the very early spring flowering plants, perfectly hardy and adapted to the climate, demand more attention. It would be a surprise to many of our readers to learn how great a number of our native plants are cultivated in English and European gardens, that in this country are seldom seen away from their native haunts. The hardy, beautiful, native Orchidaceous plants alone, that may be cultivated, would make a glad surprise in any garden if properly managed. We are aware that a great variety of the native plants are in cultivation, but it is by the few comparatively, not generally and according to their real worth. But gradually, as their merits become better known, they will be more highly prized. The little *Daphne cneorum*, which also has evergreen foliage, very properly accompanies the native flowers exhibited in the plate, since in the garden it blooms about the same time. Wherever this plant will succeed it is most charming. It grows only about a foot in height, having a procumbent habit with age and thus spreading laterally but not growing upwards. When thriving it blooms profusely, the flowers being a little larger than here represented; besides their attractive color set off by the rich green foliage, they emit the sweetest perfume. Although this plant will succeed fairly well in most soils, it has a decided preference, to be sure not so positive as that of the *Arbutus*, still strong, for a soil composed in great part of vegetable matter and with comparatively little lime. Besides, if it can have shelter from the sun by a position on the North side of a group of evergreens, or even low branched decid-

uous shrubs, it will be better suited than elsewhere. Any of these plants can be transplanted in the fall after the first of October.

FLOWERING SHRUBS.

From the earliest opening of spring there is a succession of blooming shrubs and trees all through the summer. What are these plants and how can they be employed to beautify our lawns and grounds? The want of definite information in regard to either of these points may cause our grounds either to be barren of these hardy, free-blooming plants, or to be deformed by them. Let no one suppose it to be a matter of indifference where such plants are placed on handsome grounds, or that their position can be determined by chance, as we often hear it said they may be. To decide where to plant on new



MAGNOLIA SPECIOSA.

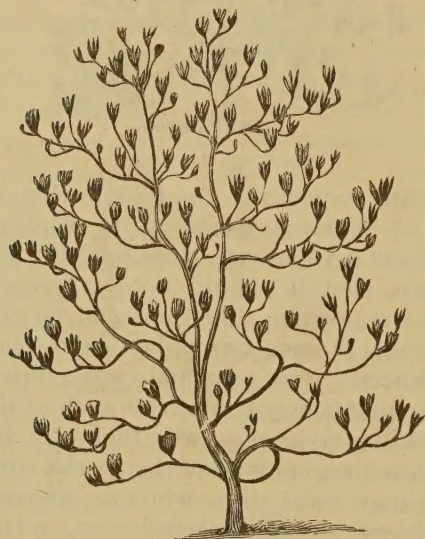
grounds requires so good a knowledge of the particular subjects to be employed, not only in their early state but also when grown, that it should not be expected that any positive directions can be given that may at once be applied by the inexperienced. The principal characteristics of the plants may be noticed, such as their particular style of growth, their size, time of blooming, color and other peculiarities. This may assist those who are interested to identify the shrubs when seen, and lead them to study the effect of planting them in connection with others. To plant trees and shrubs here, there and everywhere over a piece of ground, without any reference to each other, or regard to the effect of the whole, is to deform the grounds. Small places should be planted with the smaller trees and shrubs, while the larger

grounds may contain those of all sizes. A large breadth of grass in proportion to the size of grounds should remain comparatively unbroken, and the planting should be made so that, in a view of the



MAGNOLIA SPECIOSA.

whole, one object will in some sense support or relieve another. Another principle to be kept in mind is that long lines of view should be maintained from the most important points. Flowering shrubs, as a rule, should be where their flowers can

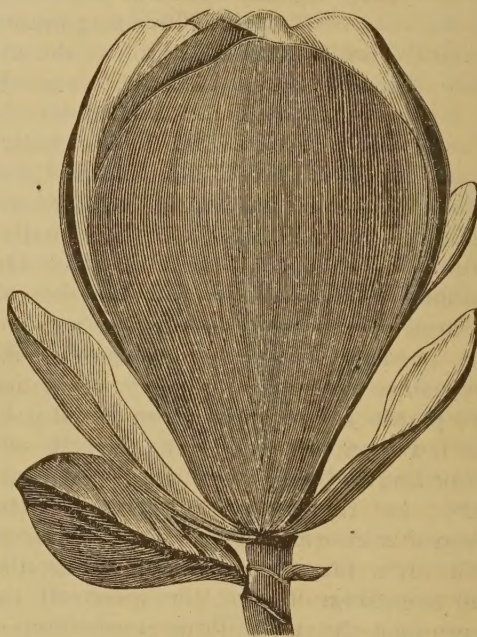


MAGNOLIA LENNE.

be best seen; consequently, in places conspicuous from the windows, and near walks. But whatever rules may be laid down, there are none that are not subject to modification.

One of the penalties paid by those who

cultivate their taste in relation to horticulture is the pain endured at the sight of so much that is incongruous and positively ugly on grounds of some pretensions; in fact, the most woful failures are where attempts are made to plant grounds effectively by those who are quite incompetent. Evidences are seen on every hand that persons who would not think of designing a beautiful picture, do not hesitate to engage in the composition of effects by planting, when they are equally as devoid of skill or taste in regard to the latter art as to the former. But there is nothing so difficult in the art of skillful planting that it may not be understood and practised by our readers. Good



MAGNOLIA LENNE.

judgment is the essential qualification of one who would comprehend good landscape planting, and perhaps imagination may be said to be the quality that ranks next in importance. The close observance and study of natural scenery is a most important part of the necessary mental training, and the imitation of the effects perceived in natural combinations, with the necessary or the designed modifications, constitutes, in a word, the practice of modern landscape gardening. In some features it is similar to landscape painting, but it is, or may be, a higher art. A knowledge of the trees and shrubs best adapted to ornamental planting is absolutely necessary, and at present attention is here invited to the consideration of

some of the best early blooming shrubs, and as few of them can be presented at this time the subject will further interest us hereafter.

The most beautiful objects we can boast of on our lawns in the early spring-time are the Magnolias. What can be handsomer, or what more fully meet our expectancy at that season? They are so lavish of bloom as to suggest a world of



FORSYTHIA VIRIDISSIMA.

floral wealth in store. The whole tree is nearly covered with large, cup-shaped blossoms, but without foliage. The blooms expand as soon as the mean temperature becomes high enough, and before any leaves are formed. In this respect the aspect is somewhat peculiar, though blossom before leaves is a feature of all the earliest deciduous shrubs. To produce the best effect the tree should have evergreens for a back ground, and when this combination can otherwise be properly made it should be regarded in planting Magnolias. We speak of the Magnolias somewhat indifferently as trees or shrubs, for the reason that all of the species and varieties produce flowers freely when quite young and small, although some of them in time arrive at the dignity of trees in stature. At the North we cannot cultivate the magnificent *Magnolia grandiflora*, since it is not hardy here, but we feel rich in the possession of the beautiful Chinese and Indian species and varieties, and the fragrant native *M. glauca*. *M. conspicua* is the earliest blooming Chinese species, having snowy white flowers, coming out this year early in May, but in most seasons the latter part of April.

A variety of the above known as *M. speciosa*, or showy flowered Magnolia, has the flowers tinged and striped with reddish purple. The tree is very symmetrical in form and produces an im-

mense amount of bloom before any leaves appear, as do all the kinds of foreign origin, and is, perhaps, a fortnight later than the first mentioned species. *M. Soulangeana* is another variety of *M. conspicua*, growing more upright than the last named variety, and more like the species from which it is derived. The flowers are larger and darker colored, or having more of the purple than *M. speciosa*. It is a most beautiful kind.

The most striking, however, of all these showy trees is a variety known as *M. Lenne*. This, too, is a variety derived from *M. conspicua*. The tree is not so compact in form as *M. speciosa*, and the flowers are perhaps not so numerous as those of that variety, but really it would be nearly an impossibility that they should be so, since they are so much larger, and as it is the branches are loaded with them. These truly magnificent blooms will measure about four inches in length with a diameter of three to four inches at the top. The outside of the petals is of a uniform clear pinkish purple tint, while the inside is a creamy



FORSYTHIA VIRIDISSIMA.

white. A very peculiar feature of this variety is the habit it has of producing a few of these showy flowers at intervals during the summer; this makes it specially valuable.

Another very noteworthy hybrid variety is Norbert's Magnolia, *M. Norberti*-

ana of the trade lists. The tree is a strong, vigorous grower, of regular outline; the flowers are white and dark purple, somewhat similar to *M. Soulangeana*, but deeper colored.

The flowers of all these varieties are lasting, remaining in good condition for a fortnight at least. By having a number



AMELANCHIER CANADENSIS.

of kinds we may enjoy them for five or six weeks continuously. The odor of the flowers is agreeable but not very strong. The leaves begin to push out before the flowers drop, and develop into large, handsome foliage. One of our native species, *M. glauca*, is quite superior for its odor, which is sufficiently strong and very agreeable. It is a low-growing, handsome tree with shining leaves, and produces its white flowers somewhat later than the Chinese varieties.

The transplanting of Magnolias is considered difficult, and when treated as ordinary deciduous trees the prevalent opinion in regard to them in this respect is true. They are usually more successfully moved when young, that is when two or three years old, than when older. They should not be moved in the fall, nor in the early spring; the best time is when the buds are swelling and at, or even after, the time when the flowers first appear. The plants should be taken up with as much of a ball of earth as possible, and this be kept together by wrapping it in cloth or sacking until it arrives at its destination, and is ready to be set in its place. Handled in the manner of

most deciduous trees, and at the time when they are usually transplanted, the result is nearly always a failure.

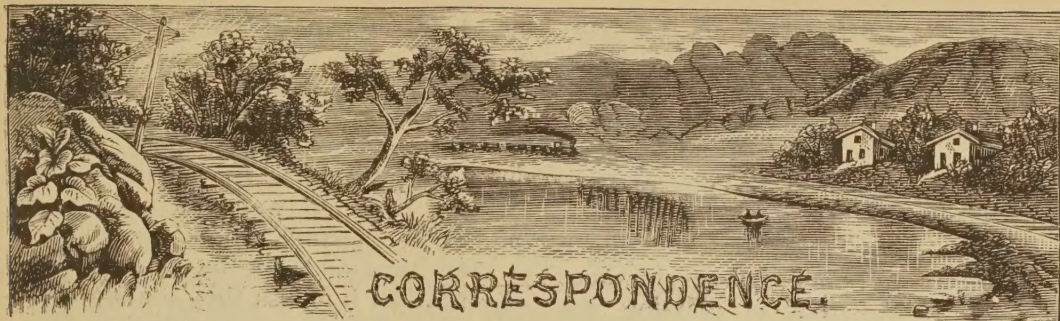
About the time, or perhaps even a little before, the first bloom expands on the earliest Magnolia, a little green-branched shrub lights up the lawn with the bright golden bells which cover in profusion its stems before any leaves appear. This is what is often called Golden Bell, and otherwise known as *Forsythia viridissima*. As a shrub it is of rather straggling habit, but in bloom in the early spring it produces an exceedingly pleasing effect.

A shrub much less known, and blooming considerably earlier than the Golden Bell, is *Cornus mascula*. The flowers are extremely small and individually would be of no value for ornament, but the branches are literally covered with them, so as to present a mass of bright yellow at a time when frosts are frequent at night. In a considerable collection of shrubs and on large grounds this species is desirable.



AMELANCHIER CANADENSIS.

While the Magnolias are brightening our gardens, one of our native shrubs, the Shad-flower, or Wild Service, *Amelanchier Canadensis*, growing in thickets and beside the streams, presents a sheet of white bloom. On large grounds this is a desirable shrub, and will appear best with low-growing shrubs about it.



RAINY-DAY LETTERS.

I love to sit at the window on a rainy day, and watch my garden grow. See it? well, perhaps not exactly; yet I know that it is growing, and what pure delight that is after the weary waiting of the last few weeks. The poor flowers were quite discouraged by the terrible frost of April the tenth. Even the Pansies had their dear little noses pinched, and the Tulips lay down quite flat, but picked themselves up again, and the Single Early are in bloom at the present writing, May fifth. The first one opened twelve days ago, and is still fresh. But for durability of bloom commend me to the Anemones. There is one facing my window that I really think has been in bloom a month. Yes, those dry mildewed sticks that I planted last fall, and that staggered even my faith, are growing. The Anemone is a charming flower; it suits me exactly, and I feel quite morose when I think how long I have had a garden without an Anemone in it. I find that I shall have to revise my opinion about the hardiness of several plants since the experience of this spring. I stated last summer that the Golden Feather is hardy here, and behold, every plant was killed April tenth, and that after enduring the rigors of the winter of '80-'81. The Dicentra, though killed to the ground, has started up again, but the Golden Feather is destroyed, root and branch. So, also, are about half of my Canterbury Bells, and most of the Pompon Chrysanthemums. The large white were badly nipped, but are recovering. It is not safe to make positive assertions about anything in this changeable world. I recollect once reading in Wilson Flaggs' charming book, *The Birds and Seasons of New England*, the statement that the Golden-winged Woodpecker never climbs trees like others of

his kind, but takes all his food from the ground, when I happened to glance out the window, and there was a High-hole going up the Locust tree, just like any other Woodpecker. But they do spend much time on the ground, digging for grubs at the roots of trees and in the grass. They come into the garden quite familiarly and are not at all shy. I think the birds must tell each other about my garden, for more wood-birds come to see me than anybody would believe. Why, a whole party of Blue Jays called on me one Sunday afternoon, and the white-crowned and white-throated Sparrows always stop a few days, spring and autumn, on their trips to and from the South. And all the Robins in the neighborhood want to build in my trees, and I should like to have them, everyone, but our Robin won't hear to it—he chases them all off, though he never meddles with the Sparrows and other little birds. Madam Redbreast has built her nest, and is sitting in the Poplar tree. The Cat-birds have arrived from the South, and the Song-Sparrows have settled all about in the grass, but so cleverly are their nests hidden that I have not caught sight of one this spring. I never do find any except by accident.

May tenth:—Alas! and alas! my Robins are gone! Crows! Horrid wretches! Why are crows permitted to exist in a civilized community? Really, I am getting tired of the way things are done in this planet, and I should like to emigrate to Mars, or Jupiter, or even to the North Star, anywhere, anywhere, out of the reach of crows, hens and rat-terriers. Rat-terriers? Yes, Rat-terriers. My neighbor has four of them, and they are always scratching in my garden, pretending there are rats hidden among the flowers.—
JENNY DARE.

KITCHEN GARDENING IN TEXAS.

I would like to give a little of our experience in the kitchen garden this year. My husband dug a hole three feet square and sixteen inches deep, cleaned out all the dirt, then scattered one pint of English Peas, of the Grey Canada variety, then put in all the dirt, covering sixteen inches deep. It rained hard several times soon after. The time of planting was January 13th, and on February 2nd there was a heavy sleet, that did not thaw until noon on the 4th, and when it did the peas were just beginning to come out—just twenty-two days after planting; they grew well, but the rabbits and chickens would not let them get more than six inches high, until the last two weeks. Now—May 21st—they are two and a half feet high, blooming, and full of young pods, and to all appearances, are doing better than those in the garden, of the same variety, covered four inches deep, and planted at the usual time. They were not protected from the cold in any way, except by being somewhat sheltered by the house on the north side. Will some one who has had experience in gardening in the South, state if it is commonly believed to be best to plant early and deep, and if the Tom Thumb Pea will come out if planted so deep.

Onion seeds received last fall from Rochester, have been treated as I shall now describe. November 18th, in a corner protected on the west and north, Mr. M. made a cold frame, and sowed a small package each of the Red Wethersfield and Danvers Yellow. He pressed the ground firmly after planting the seeds, and just three weeks after—December 8th—onions began to come up, and did very well. They were covered up twice; once when it sleeted, and once when it frosted very hard. As the rains were frequent, the garden could not be worked until May 10th. Then the little onions were transplanted into rows, fourteen inches apart, and standing six inches apart in the row; they grew at once as if they had not been moved. They all lived except what bugs and worms ate, and now we go out at night with a lantern, to catch the big brown bugs that eat the leaves. The cut-worms and grub-worms trouble the bulbs. Some of the plants have bulbs as large as a silver dollar. The soil of one-half of the garden is a

light loam, and that of the other is very black and waxy. The Onions are best in the black dirt.

On March 11th, we planted more seeds in drills, fourteen inches apart, and by the 30th of the same month, the Yellow Danvers came up well, but not one of the Red Wethersfield; both were planted at same time and side by side. I know no reason for it unless they require to be planted in the winter. The Yellow Danvers have bulbs as large as the sets that are commonly planted. Seed of New Giant Rocca was planted in the open garden February 8th, and came up in two weeks. This crop had cold weather on it and several frosts, but the plants were not hurt. They were thinned to six inches apart, and left to grow; the weeds were kept out, and the bugs and worms have been picked off, and they are now bulbing as well as those planted in November. I believe they are the Onions for Texas. Our neighbors say the plants will not make anything, and that Onions can't be raised in Texas, but I will believe that when I see it proved. They are easier to raise than any other vegetable, in my experience. We have only given them one finger weeding, but use a hoe eight inches long and an inch and a half wide, to scrape the ground, to break the dirt, and to kill little weeds after a rain. So what is there to keep them from doing well? People will say, "your Onions look nice," and then assert that they will not grow, and ought to ripen in May. I have had an old gray-headed man come to me and ask how to raise Onions, because we raised some very fine ones in 1880, from the sets.—MRS. N. M.

STRAWBERRIES.

For a few years past I have practiced rooting young Strawberry plants in small pots sunk in the ground, near the old plants. This course proves to be reliable and superior. I prepare in advance some good, light, rich loam, and with this partly fill some small pots. When the runners begin to make and form the rooting node, I sink a pot just where it will receive the runner at this point, place the rooting node at the center of the pot, and cover it with soil. It will soon make good roots and then can be turned out with the ball of earth into the new bed without fear of failure.—A. H., *Pittsford, N. Y.*

THE COLUMBIA AND CASCADES.

Let those who love nature untutored by art leave the dædal landscape and the elegant home, and view a land untrod by man, that region overlooked by the awe-inspiring, snow-topt cascades, where flows the Columbia, giant of Pacific rivers. There, beside rushing waters, let us tread the wilds and scent the flowers. Our course is through a narrow valley, down which, white with quick descent, a stream fresh from retreating snow, seeks the great river. Before us unnumbered hills, with gentle or steeper slopes, rise in gradation until united with the mountain whose grinning rocks look out from perpetual frosts.

The fresh wind greets us laden with odors received for gentle kisses bestowed upon the myriads of flowers it has passed. On the brook's winding margin are Violets, purple, yellow, white and blue, here in masses with colors mingled, or there in one pure tint. On a hill to the right the Forget-me-nots in close array look over the stream to the sod usurping Camassia, and on either side above face the flaming upright Pinks, and the Honey Flowers shedding sweetest perfume and swinging their heavy heads in the breeze. Columbines, blue, white and red, grow close to the jutting rock or stony bed, and, save where distance loses all things small, the eye marks no spot where on sunny bank or grassy slope dwell not the flowers. Many are nameless, though some bear a striking resemblance to those known. We find the Primrose flowers, but not the foliage combined; the Portulaca's stems and leaf, but a different blossom; the foliage of the Pink, stem of the Aster, and flower of the Tulip, with little variation, all unite. This last is a flower of more than passing notice, which if art would add to it as it has to others found wild, would rank with those the most prized. Many others are as noticeable, but our extended landscape now invites further attention. Half way up the hill rocks protrude, and level with earth are large beds of stone with no admixture of soil. Listen! a sharp sound comes, like that made by the cricket; and now a slight rustle discovers to us the serpent of Eden. There he lies, scarce yet coiled, with flattened head and piercing eyes, surrounded by those variegated scaly coils, white over all; if you make the

slightest motion the shelly rattles vibrate, but if you don't attack him he uncoils and glides silently away.

The hill-top is strewn with Prickly Pear, lending variety to the low growing, star like flowers. The Cactus is here in perfection; cultivated specimens are not worthy of comparison with those here growing wild. Some are long and recumbent, but generally upright, and perfect vines, red blooming on the top, bright or floury green bodies, armed with a dense array of needle-like spines. The hill-top view is exhilarating and delightful; for miles, to right or left, the vales and hills are Flora's own, being painted with many colors, and though in distance we cannot see single plants, yet the blue tinge which skirts the hill yonder tells where grows thickly the White Sage, Larkspur, or Camassia, while the red fringes, yellow fields and floury dustings are not to be mistaken but are recognized as spots where the flower goddess has sowed with a lavish hand. Before us are the outskirts of "a thousand miles of mighty wood." Trees, single or in groups, stand out from the dense array like skirmishers from an army, and long lines follow down the friendly stream which affords moisture to their roots. Drawing nearer, we see stately groves gently waving in the breeze, while giant trees here and there upturned tell how, when the slanting sun restores the changing years, the wintry blasts have tossed their evergreen heads and tugged at their rooted strength. Yellow mosses of centuries' growth ornament their boughs, and the large brown vines look in pleasing contrast from their surroundings of dark green, as from a strangely fruited tree. Soft grass of lustrous green carpets closely the earth, and the ornamenting flower withholds not its presence. Fir and Pine, from yard high saplings to forest monarchs, grow far removed or clustered, thus adding variety to the scene.

The valley, constantly narrowing, has now become a rocky gorge where several streams with ceaseless roar unite in foaming cataracts. Great red rocks are around us, and no ruins of art would be more impressive than these, wrought by volcanic fires of a long gone age. Huge columns with presented semi-circles, bear up immense masses of rocks, whose scalloped fronts mark even number with the col-

umns below, and above these rest huge masses of slaty rock, now shivered and cracked, and ever adding, fragment by fragment, to the vast pile below. These rocks, in graceful and unequaled singularity, are painted by close growing mosses in stripes and spots, with well defined red; yellow, white, gray and black colors. Here and there are craggy heads and steeple-like rocks, far larger above than at base, composed of cinders, lava and scoria, which have once floated in an awful sea of fire.

Ah! how the scene is changed; here the cool, constant wind wafts to us the perfume of Roses, and between boughs of the trembling Aspen we see the bright clustered berries of the Mountain Ash. Flora allures us with her treasures from a hundred rocky niches, and high-perched upon rocks grows the queenly Rhododendron, apparently jealous of her rock ornamenting neighbor, the Flowering Currant, while the elegant and graceful Tamarack raises high his plummy top where issue sweetest bird notes, and casts upon the Pine a beautifying shade of lighter green.

Our barometer registers five thousand feet; still rises the beetling cliff, its rocky brow fringed with the Mountain Fir, whose lower limbs recumbent, form a dense mat upon the scanty soil. The leaves, an inch long, grow very close and encircle the stem; dependent from the upper limbs grow scarlet purple cones, about three inches long, and hanging from each is pitch as clear as water and in the form of small globules and icicles.

We still pursue our upward way, with huge piles of snow to our right or left, from which issue a thousand rills; floral beauty disputes with the melting snow possession of the wet earth and plants itself in the crevices of the towering rock, where shines the southern sun, and climbs even to its craggy top. Here we find new and strange flowers, known only where the cool wind ever blows, and where the clouds float below. The frosts of night cover them and stiffen their petals, still is their life not endangered nor their beauty faded—with the return of the warm sun they look out from the dissolving frost as bright as ever.

Our barometer registers seven thousand and two hundred feet as we look from the small flat top of the mountain,

and now, thousands of square miles are added to the vast expanse previously seen. To the west rise the Cascades, unsurpassed among mountains in grandeur and magnificence. Three hoary peaks, mighty among their snowy train, look down ten, twelve and fifteen thousand feet respectively, of aerial height, upon the extended wilderness, the wide plains, and even the bosom of the great Pacific, over the waters of Puget Sound. As we turn, hills rise beyond hills, until the eye rests in the dominion of England's Queen. Far, far to the North stand white, eternal peaks. To the East, over rocky ascent from the river, over plains clothed with grasses browned by summer heat, and in the dim distance, where earth and sky blend, are mountain outlines, just discernible. A Southern view reveals fields of ripening grain, the only sign of civilization, and to the Northeast, for many miles, may be seen the great Columbia.

Charmed with the view, we would remain, but night is stealing along, and long shadows fill the valley below. Climbing over black rocks, and winding around the drifts of snow, we arrive at a suitable place to pass the night, beside a gurgling stream in a timbered basin below. Here, retired under dense trees hung with black mosses, with the world beneath us, just at the entrance of dreamland, and while thinking over the past day's scenes, we repeat, "*Olim meminisse juvabit.*"—GILBERT M. WARD, *Oakville, Wash. Terr.*

DIELYTRA SPECTABILIS.

The Dielytra, or Dicentra spectabilis, or, as it is popularly called, Bleeding Heart, is a very fine and showy hardy herbaceous perennial plant belonging to the natural order Fumariaceæ. It was first introduced from the north of China to the gardens of the London Horticultural Society by Mr. ROBERT FORTUNE, in 1846. Mr. FORTUNE first met with it in a grotto garden on the island of Chusan, growing among the artificial rocks, near the beautiful Weigela rosea. Its Chinese name is "Hong pak Moutan Wha," or the red and white moutan flower. It is one of those plants of which the Chinese Mandarins are so fond, and which they cultivate with so much care in their gardens. It is said that it was first made known to Europeans by the Russo Siber-

ian, Dr. KARMANYSCHIEW, who, studying it at Upsal, communicated the fact to LINNÆUS. Be this as it may, it does not however appear to have been seen alive until it was discovered by Mr. FORTUNE, who brought it home with him.

In a rich, deep soil this beautiful species forms a plant growing from two and a half to three and a half feet in height, with recurved and branching stems, producing its flowers in spreading and axillary racemes, each raceme being from five to seven inches in length, and containing from twenty to thirty heart-shaped flowers, of a bright pink color. In autumn the stems die to the ground and the plant remains in a dormant state until spring, when it again appears above the ground. It flowers in May and June. In the garden it merely requires a light, deep, rich soil, and a yearly dressing of well-rotted manure, or leaf-mold. As a pot plant for the window garden, or as a plant for



BLEEDING HEART.

forcing, the *Dielytra* is almost without an equal on account of the ease with which it bears this treatment. For this purpose the plants should be taken up about the end of October and placed in a box; cover the roots with earth and allow the box to remain exposed until it has been frozen thoroughly. When this has been done, the box can be brought inside, and the plants, divided if large, potted into suitable sized pots, using ordinary potting soil, and giving good drainage. When potted, water thoroughly, and remove to a cellar, or place under the stage of the greenhouse. Allow them to remain there until the pots become filled with roots and the shoots begin to appear, when they should be removed to a light, sunny situation. As the plants increase in growth, water should be more freely given, and once a week they should

have a watering of liquid manure. When the flowering season is over, place the plants under the greenhouse stage or remove them to the cellar, gradually decreasing the supply of water; plant them out in a well-prepared border about the first of May. If necessary, divide the plants before planting out. This plant can also be propagated by cuttings of the young shoots, when they become sufficiently hardened; but for amateurs, propagation by division is the simplest and easiest mode of increase.

The generic name, *Dielytra*, is derived from *dis*, double, and *elytron*, a sheath, in allusion to the two sheath-like spurs at the base of the flowers; and the specific name in allusion to the showy and remarkable appearance of the plant when in bloom.—C. E. PARNELL, *Queens, L. I.*

SPRING FLOWERS.

This is the 15th day of May, and not a tree is yet in leaf; but Buckeyes have burst their buds, Lilacs have grown about an inch, Barberries are leafing out, the nude Forsythias are a shower of gold, and the Japan Quince a mass of opening scarlet buds. The lawns have been once mown, walks have been repaired and rolled, pruning is finished, digging done, and all seems neat and trim, and yet what poverty! what a libel on the very name of garden! The fragrant Hyacinths and the gaudy Tulips make a show, it's true, but what else is there in the average yard at this time, when above all other seasons of the year the show should be most varied? Precious little.

Come with me to the woods and fields and find patches of the meadows white with Bluets, and happy children plucking them; Violets, yellow, blue and white, scattered everywhere; colonies of Spring Beauty by the woodside; the gay Bloodroot and the Twinleaf on the wane; white and purple Trilliums in the leaf-mold beds among the trees; Bellworts with their drooping golden drops, in clumps and scattered through the wood; mats of purple-tinted Wood Anemones broadcast among the bushes; Rue Anemones in wettish places; Golden Corydalis among the rocks, where too we find Virginian Saxifrage; Dutchman's Breeches are white and puffy; the Adder's Tongue has raised its yellow head, the Orange-

root its whitish blossoms, the Mitrewort is out, and the bright Marsh-Marigold glitters in the stream. These, and more, are what grow wild around us everywhere and make the wastes more of a garden than we till at home. And all these plants will grow in our garden as well as in the woods, and brighten up odd corners and half-neglected spots—their favorite homes—and rob you not of space for Tulip or Geranium beds; then, pray, bring them in.

And to these add the Moss Pink which loves the sunniest place, and another Spring Phlox called *amoena*, now a sheet of purplish pink, and which prefers a sandy, slightly shaded soil; and the creeping Phlox, called *reptans*, which will be open in a week, and which likes richer, moister earth, and too, a little shade. The Spring Adonis has large, bright yellow flowers; it has been in bloom for the past three weeks; the Rock Cress, white, is at its best; the great Siberian Saxifrages have massive heads of bright rose blossoms; mats of purple Aubrietias spread upon the ground; white, red and lilac Epimediums have opened out; *Orob. vernus* and some near allies are solid bunches of bright and pretty purple pea flowers; the Caucasian Leopard's-bane, *Arnica Doronicum* has had large, bright yellow sunflower blossoms two weeks or more; the deep blue eyes of the Creeping Forget-me-not, *Omphalodes*, peer at you from its carpet bed among the bushes; *Corydalis nobilis* has many branches of pretty yellow flowers; and the Periwinkles, blue and white, are all in bloom. And all these are common hardy perennials, plants which, when we get them, shall, with very little care, stay with us forever. And to the above we may add Pansies, Primroses, and Polyanthus, Daisies, bright Anemonies and Forget-me-nots. Among Anemonies I should especially recommend the bright blue Appennine Anemone, the golden Buttercup-like *Ranunculus Anemone*, Robinson's Anemone, which is like a very large Wind Flower, and the Pasque Flowers.

And to all these what a seasonable auxilliary host we have in bulbous plants. There are big yellow Daffodils, curiously mottled Guinea-hen Flowers, tall Crown Imperials, bright Grape Hyacinths, blue Squills, and several others.

Now, when we consider that all of

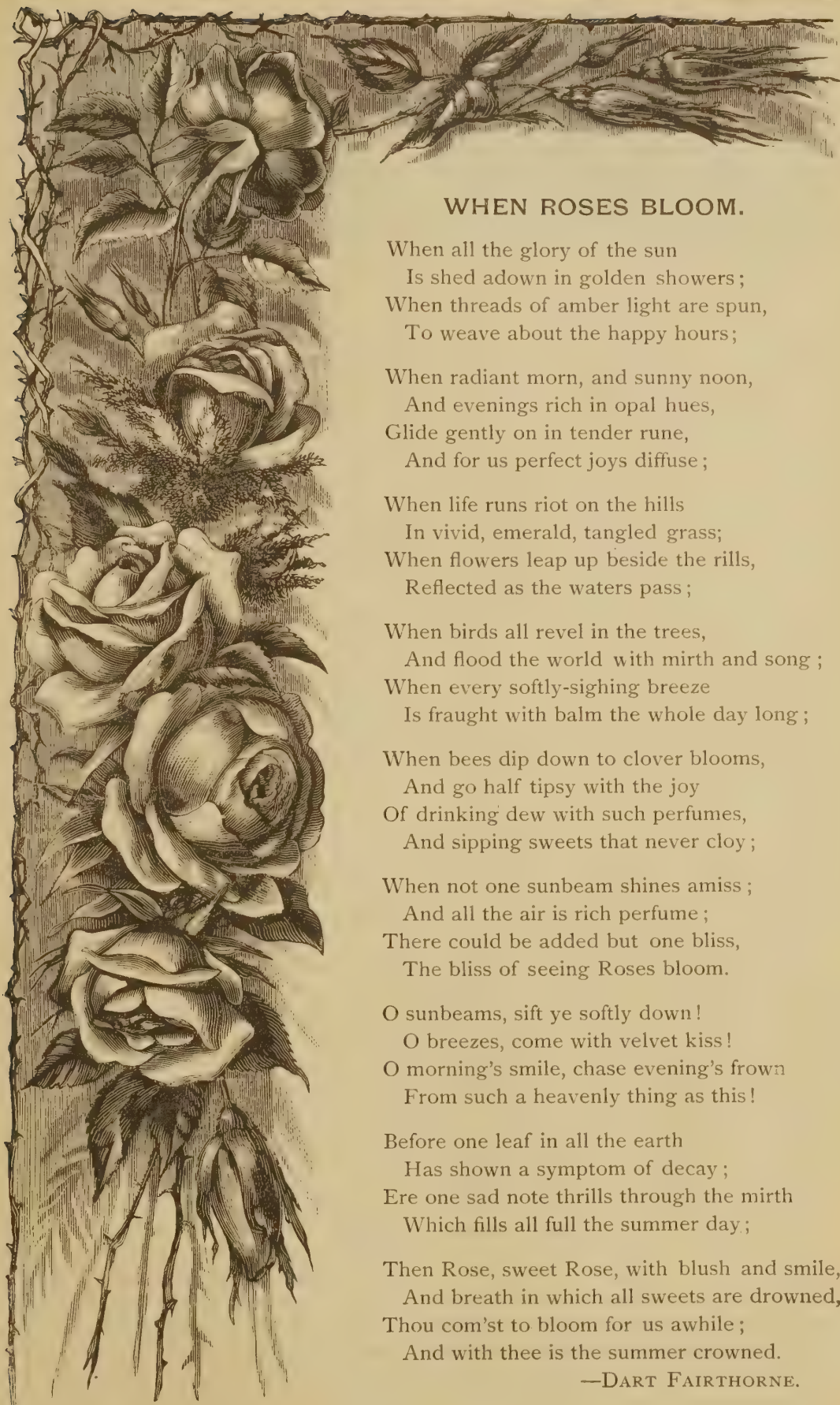
these flowers—wild and cultivated—are really pretty and in bloom to-day, easily raised, and within the reach of everybody, also, that when we once get them we may never afterwards be without them, what excuse can we urge for the bareness of our gardens in the early spring-time? And as the days pass on new flowers come in, till within a week or two, these that I have mentioned shall have altogether gone and a new set be in their place. And thus it is throughout the spring, the summer and the autumn months we have perennials—handsome hardy plants—in close succession.—W. F., *Cambridge, Mass.*

A NATIVE ASTER.

Plants of the pretty Aster *oblongifolius* sent to London by Mr. SAUL, of Washington, are acknowledged in *The Garden*. Some of the smaller and bushiest of the American Asters are common favorites there, in England, for late Autumn bloom, under the name of Michaelmas Daisies. Mr. S. says that this sort came from Texas; the flowers are bright azure blue, and a bed of them allowed to take their natural habit, unhampered by weeds, is strikingly beautiful beyond any plant of the season—a good subject for the wild garden, which is now becoming deservedly so popular in roomy grounds. Plants, like children, naturally take graceful attitudes if not disturbed or distorted by any outside pressure.

The Aster referred to was found by Prof. T. C. PORTER, on the banks of the Juniata, as credited by GRAY, and is thoroughly hardy. But its rays are rather violet or purplish there. Its foliage is very abundant and neat in outline; and the whole figure of the plant is pleasing.—W., *Tyrone, Pa.*

ABOUT ANTS.—They are cruel cowards; for when I lived South, the cockroaches were so large, I used to set mice-traps to catch them in; and presto! when snap went the spring, a colony of ants would appear from some place, and no one knew where, and pounce upon the imprisoned victim, and make a meal of him immediately, devouring the last tit bit before the poor roach had given up the ghost—that's your ants.—MOTHER HUBBARD, *Bow Window, Mass.*



WHEN ROSES BLOOM.

When all the glory of the sun
Is shed adown in golden showers;
When threads of amber light are spun,
To weave about the happy hours;

When radiant morn, and sunny noon,
And evenings rich in opal hues,
Glide gently on in tender rune,
And for us perfect joys diffuse;

When life runs riot on the hills
In vivid, emerald, tangled grass;
When flowers leap up beside the rills,
Reflected as the waters pass;

When birds all revel in the trees,
And flood the world with mirth and song;
When every softly-sighing breeze
Is fraught with balm the whole day long;

When bees dip down to clover blooms,
And go half tipsy with the joy
Of drinking dew with such perfumes,
And sipping sweets that never cloy;

When not one sunbeam shines amiss;
And all the air is rich perfume;
There could be added but one bliss,
The bliss of seeing Roses bloom.

O sunbeams, sift ye softly down!
O breezes, come with velvet kiss!
O morning's smile, chase evening's frown
From such a heavenly thing as this!

Before one leaf in all the earth
Has shown a symptom of decay;
Ere one sad note thrills through the mirth
Which fills all full the summer day;

Then Rose, sweet Rose, with blush and smile,
And breath in which all sweets are drowned,
Thou com'st to bloom for us awhile;
And with thee is the summer crowned.

—DART FAIRTHORNE.

A FEW WORDS FROM PERSIA.

The following extract is from a letter to Mr. VICK, written by an old correspondent, which was accompanied by a box of fruits and seeds here described, that reached us in perfect condition; and, also, a pair of silver cuff buttons made in Tabriz. This last gift to Mr. VICK arriving a day or two before his death was never shown him, but it will be kept in pleasant remembrance by his family:

"I look with envious eyes at the pretty yards and gardens illustrated in your MAGAZINE. If able to buy water here, one can have quite a respectable yard. Our yard is considered very nice, but in America it would be called a small vineyard. The yard is nearly square, surrounded with mud walls, eighteen or twenty feet high, and with wide brick walks around the four sides and down the middle. Two or three feet below the walks is the yard; in each square are four rows of ill-trained grape vines, a few small fruit trees, common Roses and Chrysanthemums. From self-sown seed are Marigold and Four-o'clocks, which I have tried in vain to exterminate. In the corner of the yard near my bed-room window, is a large Rose tree, eighteen feet high, covered with small, single white Roses, from June to November.

We hope to have a new house this fall, (mission house) and I am doing my best to get pretty vines started to cover up the high blank mud walls, and to have a lawn. I have a Virginia Creeper, just started in a crock. On this one small thing, nearly all our circle are having the walls covered with the vine in imagination. I hope our excessive admiration will not kill it; we pass the crock around for every one to admire, every day or two. I send you by this mail some fruit and seed of the Eda; it is a tree bearing small brownish fruit, like flour. The poor of this country eat a good many of these fruits, but to me, the flower is the beauty. It is bright yellow, and is very fragrant, 'like cinnamon and spice, and everything nice.'"—MRS. S. L. W., *Tabriz, Persia.*

HONEY LOCUST FOR BEES.—A neighbor has planted Honey Locust seed to raise trees for the bees. What a notion! It gets its name from the sweetish pulp in the seed-pod.—A. W., *Dunkirk, N. Y.*

THE WILD GOOSE PLUM.

MR. EDITOR:—Some time since, a statement appeared in the MAGAZINE to the effect that this fruit was rather a failure. I have no doubt of the truth of the report, but climate has much to do with this, as it also has with many other varieties of fruit. This Plum revels in its glory in Tennessee, which is regarded as its place of nativity. As to its flavor, it is not finest, but good; but it has so many other good qualities to recommend it, we overlook that deficiency. As a bearer it has no superior; its size is above medium, and its color is splendid; it never rots on the tree and is free from the Curculio. It is raised here from its own roots, which seems to be the best method. The sprouts under the trees are taken up and transplanted instead of raising the trees by budding on seedling stocks. In this way we have fine hardy trees, always yielding a good return.—A. H. B., *Brownsville, Tenn.*

CELERY FOR LATE CROP.

This month, earlier or later according to latitude, is the proper season to transplant Celery for a late crop. Plants that have been transplanted in the beds and grown stocky, will now be so well furnished with roots as to make their removal very safe. Rich soil and plenty of water during growth are the requisites for large crisp Celery. For the dwarf varieties very shallow trenches, three or four inches deep only, are required, and large quantities are now raised by market gardeners without any trenches whatever. The plants are set in rows not more than thirty inches apart and about eight inches from each other. In this way the cultivator can be run between them, and, when strong enough, the shovel plow can be used, giving plenty of loose soil to pack about the plants when handling. The blanching is done after the crop is stored.—B. *Grand Rapids, Mich.*

COS LETTUCE.—I have tried the Cos varieties of Lettuce for two years for summer use, and am much pleased with them. They are far the best for the hot season. All my new sowings in open ground after the first of June are the Cos sorts. The leaves are crisp and sweet all summer. In the fall, I sow Cabbage varieties in the cold-frame.—S., *Akron, Ohio.*



A WORTHY KNIGHT.

As most of our readers are aware, no man living has rendered greater service to scientific and practical agriculture than JOHN BENNET LAWES, of England. A half century of time and a great fortune has been devoted to the patient investigation of problems in relation to plant-growth, the composition of plants and soils and the relative value of their elements, the action of manures, the food value of crops, and others of similar character. The information gained from the multitude of experiments that have thus been made, many of them extending through years, has had the effect to modify, change, and even to revolutionize, many practices of the farm and the garden. "Few men," says the *Gardeners' Chronicle*, "have rendered the State more service than he. His merits have long since been acknowledged by the scientific institutions of the country and of Europe, and the agriculturists themselves have not been unmindful of the laborious experiments carried on for so many years with the aid of Dr. GILBERT. If we cannot boast many agricultural stations and experimental institutes, as they do in Germany or America, at least we may boast of one wherein it is hardly too much to say that the work done has exceeded in amount and intrinsic value that of all the rest put together. We could wish that the State could devise some special order of merit for such recipients as Sir JOHN LAWES, and not put them on a level with political partisans, municipal dignitaries, or successful traders. Meanwhile, Sir JOHN LAWES honors the baronetcy more than the baronetcy honors him."

FROST.—Late frosts in Italy and Southern Europe have greatly damaged the early vegetation.

POTATOES FROM EUROPE.

The *Gardeners' Chronicle* noticing the fact of the shipment of Potatoes to this country, says:—"Having regard to the hitherto almost invariable nature and extent of our food imports from the United States, it comes as a surprise to learn that during the past winter a quarter of a million sacks of Potatoes have been sent to that country, and these largely from the United Kingdom. That the vast expanse of land under cultivation in America should have failed to produce, last year, enough of Potatoes to satisfy the needs of its population is, indeed, a remarkable fact, and one due, it would appear, not to the Colorado Beetle, once the threatened scourge of the *Solanum* in the States, nor to the *Peronospora*, the chief scourge of our Potato crops at home, but almost solely to drought, which proved so protracted and so universal. But if it is strange that America should need Potatoes from us, it is not less remarkable that we should have even plenty to spare. That is, indeed, a novelty, and one that must somewhat confound those political economists who are ever prating that we don't grow enough of this, that and the other. Last year we grew far too many Potatoes. We not only have wanted none from the foreigner, but we have exported vast quantities, and even now Potatoes, with us, are so cheap they can hardly be given away."

SHAMROCK.—Various plants are used to represent Shamrock. In London, *Trifolium repens*, or White Clover, is most commonly employed; but in some parts of Great Britain, *Medicago lupulina* is the favorite plant, and in others some species of *Oxalis*. What plant was first called St. Patrick's Shamrock is now uncertain.

PITCHER PLANTS AT HOME.

A plant collector describes in the *Journal of Horticulture* some of his experience in searching for Pitcher Plants in the Island of Borneo. From his descriptions the following extracts are taken. "Nepenthes are peculiarly tropical; no plants are found in temperate countries. In the Malayan Archipelago they abound. On the Malayan Peninsula are several species—*N. sanguinea*, *N. Rafflesiana* and *N. ampullaria*. So also on the Island of Singapore the two last named are plentiful; in-

their regal magnificence, the finest and rarest of all known species in their native Bornean habitat—one must go to Kina Balu, a large and precipitous mountain, five days' journey from the mouth of the Tarawan or the Tampassuk rivers.

"We landed one evening on Pulo Tiga, where *Phalænopses* grow in thousands on the trees near the shore. It is a large island, well wooded and watered, but with no permanent inhabitants. We cooked our dinner on the sandy beach, and ate it sitting on a large tree trunk as

the sun sank below the horizon. The sunsets here are very beautiful, and Kina Balu looms up into the open sky, its top crags tinted by the dying sunlight. Morning and evening this mountain is often seen; at mid-day it is rarely visible, being enveloped in mists or cloud. Sea life and fresh air give one a keen appetite, and dinner is a subject of much importance to the traveler. Native cook-pots, carried in baskets are brought out. They are made of bell metal, and supported on three large stones or pegs stuck in the sand. The Palm tops are cut and sliced to the fish, or a fowl or a pigeon just shot off the *Casuarina* trees by the shore, and chilies are added. Tins of soup and jam are



NEPENTHES LOWII.

deed, *N. Rafflesiana*, which cultivators at home find hard to please sometimes, is there a great pest, coming up as a troublesome weed after the jungle has been cleared by fires. In Labaun every wet ditch and boggy piece of jungle is full of *Nepenthes*, which climb up the low shrubs and Bamboo hedges in the greatest luxuriance. Hundreds of pitchers hang amongst the leaves and spikes of bright maroon blossoms. But to see 'Nepenthes at home' in reality—to visit the court and see the Pitcher Plants in all

brought from the boat, and at a score of little fires around us the Malays cook their rice, which with dried fish forms their staple food. My little Chinese 'boy' was an excellent cook. Perhaps one reason for this was that we always shared the contents of the pot together! After dinner, coffee and a cigar, darkness comes on, and brings with it many thoughts of home and friends. Then we waded out to the boat to sleep, thus avoiding the hungry musquito of the jungly shore.

"The boat is left at the Tampassuk river, and then comes a five days' walk to the mountain. There are no roads better than a Buffalo track, and no bridges, so that one must needs ford all rivers and streams. You can buy a Buffalo and ride at a snail's gallop, or you can walk. Buffaloes are slow and sure and of exceptional service in crossing streams when freshets come rushing down from the mountains often and suddenly. Now and then we pass native Palm-leaf huts and groups of Cocoanut and Betelnut Palms, Bananas and other fruit trees. Bananas, and now and then a Durian or a Trap-foot, are offered as presents by the natives. Sweet Potatoes, Maize cobs, Cucumbers and Kaladi (roots of *Caladium esculentum*,) become more plentiful as we get further inland. The coast people catch their fish and buy their rice; the inland folk buy fish and grow their rice for themselves. At a little Dusan village below the slopes of Kina Balu I first found the women weaving cloth from the fibre of a native weed, (*Curculigo latifolia*.) It is strong and durable, and is dyed with home grown indigo. Many of the poorer natives here still wear a strip of the fibrous bark of a kind of Bread-fruit Tree (*Artocarpus elastica*) around their loins. This, as their only garment, is five feet long and eighteen inches wide, and is prepared by maceration and beating with clubs until the tough bast tissues only remain. No doubt this is actually the first clothing ever worn in Borneo—veritable Fig leaves to the aboriginal people of the island. Inland the people are stout and shapely, the women being especially comely, with dark eyes and raven tresses. Their duty is to attend the crops as well as culinary and other in-door labors. They are very fond of ornaments, and wear anklets and waistbelts of metal, and ear ornaments of singular shape. They were ever attentive to us, and were delighted with the needles and thread and little looking glasses which we gave them in return for their presents of fowls, eggs, rice and fruits of various kinds.

"After five days of tramping over rocky paths and through rivers swollen by rains, now under a vertical sun, and anon drenched by sudden showers, we arrived at Kiau, a village on a ridge 3000 feet high, running nearly at right angles to the slopes of the great Pitcher Plant moun-

tain. Having been here once before we found old friends glad to give us a welcome, and we were glad to rest after our march. Here and there along our route Orchids and Ferns grew in profusion on the trees beside the streams. Bamboos fifty or sixty feet in height waved in the breeze, and every where the women were busy in the wet rice fields. Here at Kiau we hired guides for the mountain, and retired to rest happy to think we were so near the main object of our journey. Even now we are two days journey from the spot where the wonderful Pitcher Plants grow. First comes *N. Veitchii*, one of the best and most distinct of all known kinds. Its habit of growth is quite different from that of all other species. It is purely epiphytal, having two-ranked or distichous leaves, some of which clasp the trunk or branch it grows on. Fine native specimens are three feet long, bearing thirty or forty pitchers, living and dead; for this plant, like the Orchids, while growing at one end is dying away at the other. It is very variable; some forms have deep red pitchers, others are purely green, others again green blotched with red. In low, shady forests near the river *N. bicalcarata* grows very luxuriantly, with stems like a vine, fifty feet or more in height. Soon after I landed in Borneo I found this plant in another locality, and in the excitement of pulling down one of these rope-like stems I dislodged a whole colony of tree snakes—not a welcome shower to fall near to one's head and face! Perhaps after all the poor snakes were more frightened than I was in the excitement of seeing this plant for the first time.

"Of all the Pitcher Plants of Kina Balu none are more singular than *N. Lowii*, which is hard of texture, and in shape resembles an old fashioned wine flagon. It is epiphytal on *Casuarina* trees at 5000 to 6000 feet elevation, where every twig and leaf are dripping with moisture. Young plants of this species have never been seen, so that no idea can as yet be formed as to what shape is assumed by the pitchers of the lower leaves. On our first ascent of Kina Balu, weary, wet and tired—I might add hungry also—I saw a brown and broken pitcher on the ground. Instinctively glancing upwards the sight here shown met my eye. Tired as I was I could not resist making this little sketch."

SAW-DUST FOR PLANTS.

A correspondent of the *Journal of Horticulture* says:—"As far back as thirty-four years ago I was wondered at for working with saw-dust, but only those who try it will know its great virtues. My gardener cries out for Cocoanut fibre, I say, 'No, use saw-dust.' Now, my plan was this: Supposing I made up a bed of hot manure for a frame, I at once covered it with the lights, and filled in six or eight inches of saw-dust, and let it be ever so hot I could at once use this frame. Water it well, and in a few days you may plunge your pots down to the rim, and so soon as you see the young plants growing vigorously be sure that they have a fibre or two into the saw-dust, and it is then that you must decide what to do, for if you do not the plant will rush in two or three days out of your comfortable keeping; but the saw-dust must be kept damp. And then what comes of it? It becomes a fine, rich, black brown, crisp to the hand, and invaluable for potting composts. Any one, also, who can get saw-dust and run the house sewage through it will find a manure of no mean value. It may be said of saw-dust that anything and everything will grow in it if moisture is supplied, and decay of the saw-dust be promoted or started before using it."

SINGLE DAHLIAS AS POT PLANTS.

It is probable that some of the more striking varieties of the Single Dahlias will make good exhibition specimens grown in pots. The *Gardeners' Chronicle* states that a few varieties were recently exhibited "growing in small pots, and though the plants had been pushed on to get them into flower, they were very pretty, indeed, and bloomed with great freedom. If grown on generously into good size in sufficiently large pots till the plants become somewhat pot-bound, and then treated to a little liquid manure, the plants would, no doubt, make fine decorative objects in a conservatory, and carry on a supply of cut flowers till a period some time after the plants were cut down in the open air." As there are now so many varieties of these bright colored flowers, they will prove very attractive if it is found they can be employed in the manner suggested. They are sure to be prized in this country, when better known.

A CLIMBING MELON.

A trustworthy correspondent of the *Revue Horticole* informs that journal in regard to a variety of Musk Melon having a climbing habit, and which is best cultivated by supporting it on sticks, like Peas, or rather, perhaps, by poles with stubs of branches remaining. This is his account: "The head gardener of the farm school of Royat obtained, two or three years since, by cross fertilization with the Italian Melon, Moscatello, a variety of climbing Melon of the very first quality, very productive, and the culture of which I do not know well how to recommend too highly, even in the climate of Paris. It accommodates itself very well to open air culture, planting in May and June with a good and warm exposure. Nothing is more curious than this beautiful climbing plant when covered with flowers and fruit."

GOOSEBERRY CATERPILLAR.

The method here described for destroying the Gooseberry Caterpillars, and which is the same that has been recommended for the Green Cabbage Worm, is given by a correspondent of *Gardening Illustrated*. "Last spring my trees were visited by a plague of Saw-flies. Acting on the advice of a friendly miller, who was the only fortunate preserver of his crop in the previous season in these parts, I made my gardener sprinkle the trees with 'middlings.' In a few hours the trees were entirely free from their enemies. They reappeared, but a repetition of the dose had a like effect."

WEEDS ON WALKS.

Experiments in England in relation to the value of different substances as agents destructive to vegetable growth on walks, show Sulphuric Acid, Carbolic Acid, and Chloride of Sodium, or common salt, to be the best, and to be of nearly equal expense in use. "Sulphuric Acid is immediately fatal to all vegetation on contact. Carbolic Acid is slow in action, gradually turning the leaves, and especially the roots, brown. Salt is almost immediately fatal on a damp walk, or after the first wet day. The preventive action of salt is only good for about three or four months, vegetation reappearing in, perhaps, an aggravated amount on damp or shaded walks."



WINDOW PLANTS.

I submit a few questions and would be thankful for an answer through the MAGAZINE.

What plants will bloom best during the winter months?

Is there anything I can do to keep the little green lice off from my plants?

Is it better to plant the seed for winter blooming Mignonette or take up a root?

Will Pansies bloom during the winter months if taken up in the fall?

I have a large bay window with four windows in it, and should judge I could have about twenty-five pots. Now I would like a list of pretty, free blossoming plants. My window is in the sitting room, and is heated by a coal fire.

Is there such a Verbena now as the General Grant, of a very handsome shade of red, I believe it used to be called?—F. H. S., *Athol, Mass.*

As the information here sought is in reference to ordinary window plants, the answer now given to the first question is intended to be appropriate to the simplest culture only, without being complete.

We should have in the first place some good varieties of *Oxalis*, and especially *O. floribunda rosea*, and *alba*, *O. versicolor*, *O. Bowii* and *O. lutea*. These plants can be kept in pots or in hanging baskets, and either way will give bloom continuously with very little care. The bulbs should be planted the last of summer or early in autumn, in light, fresh soil, with a considerable proportion of leaf-mold. After potting give water and place near the light. Attention to water as needed and keeping them in a good light—a bright, sunny window if possible—is nearly all the care needed.

Then we should have a few plants of Chinese Primrose, red and white, which, also, will bloom continuously during the winter months.

For a greater variety, next make a good selection of Hyacinth, Tulip, Crocus and Narcissus bulbs. All these by proper management can be somewhat hastened, or retarded, thus increasing the

duration of their blooming season. The Hyacinths will, of course, be selected of white and the different shades of red and blue. The single flowers are best for pot-culture. The early Roman White Hyacinths will bloom soonest, coming in about Christmas, and the others can be made to bloom successively for three months afterwards. Secure good bulbs early in the fall, and pot in rich, light soil, then water, and stand the pots away in a cool and dark place for several weeks, or until the bulbs have nearly filled the soil with roots. Then take a few pots of each kind to the light, keeping them in a temperature as low as the room will admit. Every week a few pots can be brought out, and thus a succession of blooming plants maintained for a long season. Bulbs potted and at once taken into heat and light will make a rapid growth of leaves with few roots and without sufficient vigor to push up and develop the flower spike, which will scarcely emerge from the bulb, and will show only a few small flowers nearly concealed by the leaves. The treatment here mentioned for Hyacinths should be the same for the other kinds of Dutch bulbs.

Without going further now into a subject which is often treated upon in our pages, we need to say only, that with the preparation made that is here advised, there will be a reasonable prospect of plenty of bright flowers during the winter. Other plants of many kinds may be added to the collection to advantage.

Green lice cannot always be kept off plants, but they can be easily destroyed as soon as they make their appearance. Tobacco smoke is the destructive agent for this purpose, best adapted to most plants. House plants infested with green fly may be placed in a box, and there

be fumigated with tobacco. It will be necessary to repeat the operation as often as the insects appear. Any kind of tobacco will do for the purpose, and when they are to be obtained, tobacco stems may be used to advantage. The tobacco should not be perfectly dry as it would burn too quickly; it is customary to dampen it a little and burn it so as to produce the greatest amount of smoke. After fumigating, plants should be showered or syringed with pure water, to wash off all dead insects and other objects that may be on the foliage.

It is best to sow seed the latter part of summer or early in the fall for plants of Mignonette to bloom in winter. When the young plants have made a little growth, three or four should be placed in an ordinary sized pot and there be grown on to blooming.

Pansies will bloom in the house if taken in in the fall. The greatest difficulty with them will be to keep the temperature low enough. In fact there is more trouble with all window plants from a high temperature and a dry atmosphere than all other sources. A heat of 55° to 65° is far better than higher.

The Verbena, General Grant, was a very bright scarlet, and may yet be in cultivation, but if not, others equally as good of the same color are to be had.

COMFORT AND QUERY.

You request a word of comfort for ANNA WOODRUFF concerning Roses and Ferns. I have had no experience with the latter, but will gladly give her an account of my success with Roses. Last year I sent east for a number of Roses, some ever-blooming, others Hybrid Perpetuals. I received eight little plants. It was too early in the season to plant them out, so I put them in pots in ordinary soil, and set them, after a few days of shade, in sunny cellar windows. They all lived and flourished; several bloomed soon after planting out, and continued to do so through the summer.

One variety, the Regalis, proved to be an excellent bloomer; there were flowers on it all summer, and when the frost came there were several buds on it. My Niphetos, though not a free bloomer, has given me much pleasure. It is a small plant, but while out of doors I cut the finest white bud from it I ever saw. I had it in the house the past winter, and have cut several nice buds from it. I have given it very indifferent care, and so think it has done bravely. I have a small Duchess of Edinburgh that bloomed finely last summer out of doors; it has been resting through the winter, though growing pretty well; now, May 1st, it looks like blooming again. In January of this year I sent again for Roses, eighteen plants of different varieties; they reached me some time in February. I potted them and placed them in the cellar windows. After they started I brought some of them

into the sitting-room, and now I have sixteen plants, having lost two. One of them is rather weak, but fifteen are healthy growing plants, and some are already putting out buds. I give them good soil, plenty of sunlight, pick off all green lice as they appear, and shower as often as I can spare the time, in order to prevent red spiders. Undoubtedly, others can do much better, but I am well satisfied with my success, considering the little time I can spare to them from my numerous household duties.

But I have a grievance and would like to know why I can't start Primrose, Cyclamen or Myosotis from seed. I have tried two years with Primroses and Cyclamen, and only this year with Myosotis. I have a hot bed, well made and cared for; other seeds come up and grow finely, but these I name do not appear. Can you tell me what I ought to do?—*MRS. S. W. F., Denver, Col.*

Our correspondent has certainly shown that it is possible to keep Roses and bloom them in the house. Evidently much depends on the treatment the plants receive. The Rose is somewhat shy under window treatment, but if properly cared for, it will repay the attention with beauty and fragrance.

Primrose seed is valuable and must be sowed with care. The best way is to have a pot with plenty of potsherds at the bottom, so as to ensure perfect drainage, then cover with some fine sifted loam, and over all spread a layer of fine sand. Dampen it by sprinkling gently with a fine rosed sprinkler and then sow the seed on the surface; the slightest sifting of fine sand is sufficient for a covering. Place a light of glass over the pot to prevent evaporation of moisture, and stand the pot where it will have an even temperature near 60°. To prevent washing the surface soil when watering, it is best to stand the pot in a dish which can be supplied with water that will pass upward through the soil by capillary attraction. But it will not be necessary to supply water often, since the evaporation will be slight, and the water should not remain in the dish constantly.

Cyclamen seed is slow to germinate, and may be treated about the same as described for the Primula, only covering it somewhat deeper. It requires patience.

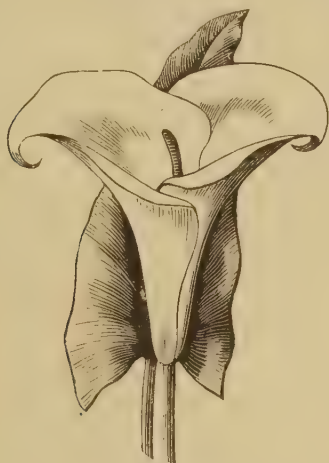
Myosotis is a hard seed, but if kept constantly moist it will germinate after a sufficiently long time. One of the greatest difficulties in starting hard coated seeds is allowing them to become dry at times; this is obviated by a pane of glass as suggested. It is best to make a nice mellow seed-bed for Myosotis in the garden border where it will not be disturbed, or where it may be protected,

and sow the seed there in the fall. After the water and frosts of several months, which it seems to require, it will germinate in the spring.

A NOVA SCOTIA GARDEN.

Some of your correspondents speak of self-sown seed. I think my garden might compare favorably with any in that respect. Portulaca, Petunia, Abro-nia, Verbena, Mignonette, Candytuft, Eutoca, Phacelia, Asperula, Calliopsis, Pansies, (which will go to seed in spite of me,) Nemophila, Daisies and Snapdragon, come up in great abundance, and many others occasionally, I have even found young Geranium seedlings, Zinnia and Celosia, and might fill my garden every year without buying any seed, as I save many kinds in the autumn, but I like to have new colors and new flowers.

Can you tell me why my Pæonies do not bloom? I have three, one an old fashioned red, which opens all right, but two pink ones form buds which never grow larger than a Pea. I water them often, thinking the ground might be too dry.



My Chinese Primroses—three year old plants raised from seed—have been blooming profusely all winter. I plant them in a shady place in the garden in summer and pick off all buds.

My Calla has not bloomed this winter until this time, March, and the blossom is double. I should like to know if a double Calla is often met with. I never heard of one before. I send a photograph of it and the Primrose, also a rough pencil sketch taken before it opened so widely. The second petal may be seen quite plainly, and also the point of a third, which is bent over, not being fully unfolded. It is very large and extremely handsome, and as it is only the common Calla and always had single flowers before, I cannot account for it. I have no better place for it than a southeast window, in a cool room.

A day in stormy March
When voices in the blast,
Now soft, now loud and harsh,
Might o'er me sadness cast.

But sweet Primroses smile
Within my window pane,
My Lily of the Nile
Erects a stately flower,
A summer's breath again
Bright'ning the wintry hour.

A double Calla, white,
Like haughty souls, and cold,

Which bloom in deeds of light,
We could not have foretold.

—A. A. DesB., *Bridgewater, N. S.*

The production of a double flower by the Calla is now known to be not a very unusual occurrence. A very decided tendency is shown by the Calla in this direction, and probably if a florist should make persistent effort to produce a first class monstrosity of this kind that would be permanent, he would have no great difficulty in doing so.

A Pæonia in the condition mentioned, forming its buds but not opening them, would probably be benefited by supplying it liquid manure once a week or oftener, soon after the commencement of the blooming season.

GERANIUM NOT BLOOMING.

I have a Geranium which I started from a cutting last fall. It has grown very well, but does not bloom. This spring I repotted it, placing it in a larger pot, giving it every attention, but in spite of all my efforts the leaves will turn yellow and drop off and new leaves form on the top, until it has become quite tall and spindly. Will you please answer me in your next issue, and advise me what to do with it, that I may have a nice flowering plant.—Mrs J. W. B., *Zelienople, Pa.*

This plant has been too much in the shade, and possibly, had too much water. The best course now to take with it is to plant it out in the open ground, where it will undoubtedly give all the flowers that can be desired. For plants of the same for next winter's blooming, strike cuttings during this month, and grow them up to strong plants by winter.

HE LIKED "COWCUMBERS."

A neighbor had the most dazzling and beautiful bed of Double Portulaca the world ever saw; it was a fervent delight to gaze upon those glowing colors. In course of time the premises changed hands and hearts. Going one day to visit those dear beauties, lo! what vision appeared to my eyes! The new owner was carefully raking over a bed for something, I knew not what, while every blessed Portulaca lay withered and dead in the garden walk. "Oh! Oh!" I cried, "why did you do it?" To which the vandal replied: "Like Cowcumbers best." Every neighbor, I am sure, would gladly have gorged that monster unto death with his "Cowcumbers," if the poor Portulacas could have been spared. We can never forgive that.—MARY ANNE.

TRAINING TOMATO PLANTS.

Market growers of the Tomato do not pretend to train or stake the plants; this may be the most economical practice on a large scale. For the private garden, however, it is neither neat nor economical. Many more and better ripened fruits can be obtained when the plants are carefully trained, and the labor required in this operation is slight. It is only necessary to drive some stakes into the ground about each plant, and tie the branches to it, as shown in the illustration herewith; this may be done with



or without encircling hoops. One way of training that has approved itself, is to drive a strong stake by each plant, so that it shall stand four or five feet high. Having stopped the plant when young, and made two eyes to start near the top, raise up two stems, and as they grow, wind or train them around the stake until the top is reached, and there stop them, causing numerous branches to form. This is a very simple and excellent method of training.

HINTS FROM EXPERIENCE.

A few hints about my plants may be of use to new beginners. In the spring I transplant and change the soil of all my pot plants. I always get the soil in the woods where it is loose and rich, and put to one pail full of soil one quart of wood ashes, and sand enough to keep it from getting hard. This is the way I prepared the soil for my plants last September, and I have had the best success I ever had. Geraniums have been in bloom all winter, and now a *Begonia rubra*. It is almost a year that it has been in constant bloom; it has now, April, eight clusters of flowers, and it is two feet high. I have four single Pe-

tunias in the house that have bloomed all winter; they are very fragrant and handsome. I have a *Happy Thought Geranium* in bud and one *Mrs. Pollock* in bloom. I have a *Tradescantia* in bloom, and the flower is a beauty. Plants should be supplied with water warm enough not to feel chilly to the hand. I always shower my plants once a week. The best remedy I can find for the green-fly is sulphur; I mix sulphur in the water as well as I can and shower the plants with it once or twice a week. Scale lice I pick off with a pin and then kill them.—R. J. F., *Steele City, Neb.*

VARIOUS INQUIRIES.

H. A. C. wishes to know how to treat a *Jasminum grandiflorum* that it may bloom during winter, remarking that "it did blossom last summer." To have this plant bloom in winter it should not be allowed to produce any flowers in summer, and this is to be prevented by pinching off the buds as they appear. After August no further attention in this way will be required. Keep the plant in good health, and allow no flowers in summer, and it will be prepared to do something very fine in the dull season.

"Is there such a plant," inquires Mrs. FRANK C., "as *Chlorophyton Startenborgium*, or *Gœthe Plant*?" There is such a plant in cultivation as *Chlorophytum*, but we know nothing of the particular species named. Any of our readers having knowledge of it will confer a favor by giving information concerning it. The *Chlorophytum* is a *Liliaceous* plant, native of Cape of Good Hope.

Mrs. R. L. C., of Youngstown, Ill., who has formerly succeeded well in raising *Calceolarias*, writes that she is no longer fortunate in this respect, but has great trouble with the young plants damping off soon after they come up. After the seed was sown the soil was covered with a damp cloth. The greatest difficulty in the house cultivation of plants is the dryness of the atmosphere, and this difficulty is met at every stage of plant growth, even from the time of seed sowing. Some vigorous growing plants are better able to resist or to accommodate themselves to such a condition than others. We know that the soil in which seed is germi-

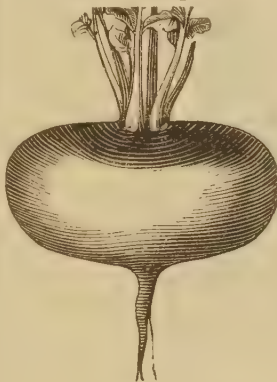
nating should be kept always a little moist, and not be allowed to dry and then receive an over-charge of water. But what is to be done when the super-dry air is constantly absorbing the moisture of the soil? We endeavor to prevent the evaporation of the moisture by covering the surface of the soil with a piece of paper, or cloth, or fine moss, or we cover the pot, pan, or box, in which seed has been sown, with a piece of glass or by a bell glass. If we neglect to remove the paper, moss or cloth, when the little plants push out, they are almost sure to be injured by the impenetrable covers holding them to the surface of the ground where they decay, or the moss holds the moisture about the crowns of the young plants and they decay just at the surface, which the gardeners call damping off. The same result follows with the pane of glass or bell-glass if kept on continuously; but with a glass cover there is a chance to give ventilation and regulate, to some extent, the humidity by allowing more or less of the external air to reach the plants. This is not the case with the paper, cloth or moss; they must either be kept on or taken off. Some plants will bear this treatment, others will not. The Calceolaria is extremely delicate in its earliest stages and requires most careful attendance. The little succulent seedlings will most surely damp off in an atmosphere loaded with moisture, and as surely die in one that is very dry. This is the point at which watchfulness, judgment and skill are required. A pane of glass, or better still a bell-glass, for covering, will prove more valuable than the other means that have been noticed, but either of these, it is evident, is inferior to a conservatory or greenhouse with a large volume of air that may be more perfectly regulated. One must do the best he can with the means at command, and a knowledge of weak points is the best equipment for their defence.

R. B. D., of Collins Center, N. Y., has had a bay window full of plants the past winter, and complains of "a very small white fly that has made sad work with them," and wishes to know how to prevent their depredations. This insect is probably Thrips, and it is to be managed in the same way as green-fly, that is by fumigating with Tobacco. As the smoke

does not destroy the eggs on the plants, a new brood hatches out immediately after the operation has been performed. Watch should be kept for the first appearance of the insects and then another fumigation be given without delay. It may require several operations in a short time to entirely destroy them. These insects thrive in a dry atmosphere, and will not be very troublesome if the air is kept humid, as it should be for the welfare of the plants.

LATE TURNIPS.

From the last of this month until the middle of August, according to locality,

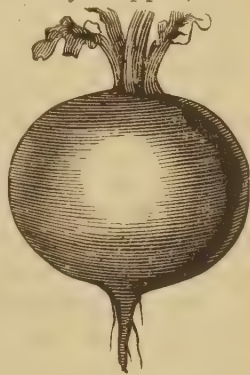


STRAP-LEAF RED-TOP.

it will be seasonable to sow Turnips for late crops. The land ought to be clean and rich, and made mellow. Sowing in drills so that the cultivator may be used is far the better way. One of the best varieties for late keeping is the Strap-Leaf Red-

Top, and at the same time a fine grained table variety and a heavy cropper, and valuable for stock-feeding.

New White Egg is an excellent sort that may be sowed later than most other varieties and will yet perfect a crop. If for any reason sowing should be delayed, this kind should be selected to make the crop. It has a firm, fine-grained flesh, and is a very desirable variety for the table.



YELLOW GLOBE.

The Yellow Globe, or Golden Ball, is a good winter-keeper, of large size and of excellent quality. It is very handsome and profitable. The ground from which early crops have been taken, and probably many pieces of land that from excess of water could not this late season be planted with Corn, may be profitably cropped with Turnips.

SOME PLANTS AT THE SOUTH.

In response to the inquiry in the May number of the *MAGAZINE* concerning bedding plants in the South, I wish to bring into favorable notice my favorite, *Achania malvaviscus*. I found it growing wild on the banks of the Brazos, in 1872, saved seeds of it, and planted them in my yard in Eastern Texas, and find the plant to be all that can be desired as an out-door constant bloomer in this climate. I have transplanted it, divided the roots every year to give to friends, and have paid no particular attention to its culture; yet every season, wet or dry, on this high, sandy hillside, it throws up a dozen or



ACHANIA MALVAVISCUS.

more stalks from three to five feet high, and blooms continuously from June to December. If housed, I think it would come as near being a perpetual bloomer as any thing could be. I potted a plant, last fall, and intend to give it a trial. The flowers are a bright scarlet, remain fresh a long time, and are very lovely for the hair, or with black or white laces. The seed-pods are scarlet, showy and abundant. I have distributed them largely in this section, and have sent them to many distant friends. The seeds germinate easily.

I wish also to recommend the *Pancratium*, (*P. rotatum*), which I find growing on the hillside and in marshy places. I transplanted it in 1874, and gave it no further attention; it thrives continuously, blooms profusely, and the small bulblets scattered over the ground send upward a leaflet and downward a rootlet, without as much as a covering. This is a most beautiful flower, it remains in bloom, however, only a few days.

The scarlet *Pentstemon*, also, grows wild here, and bears transplanting most

kindly. The *Ipomopsis* grows wild, but, having a tap-root, is less easily handled. The varieties of *Iris*, both native and foreign, all do well. The *Narcissus* is at home, and *Jonquils* and *Daffodils* make our borders golden in January and February. *Cannas* grow superbly. Of *Climbers*, *Madeira Vine*, *Pilogyne suavis*, *Virginia Creeper*, *Trumpet Vine*, *Wistaria* and many, many others, make our homes and woods enchanting.

Upon our high, dry, sandy soil, however, many floral treasures will not repay us for the trouble and expense of purchasing. Among those, in my experience, are the *Carnation*, *Tulip*, *Hyacinth*, *Pæony*, and others. I would add that *Chrysanthemums* here arrive at their highest state of perfection.—MRS. LIZZIE H., near *Palestine, Texas*.

ROSES, FUSSY PLANTS.

My sympathies are with your correspondent, ANNA WOODRUFF, in her perplexities over "fussy plants," for I, also, have hoped in vain for bloom on *Roses* in the winter. Now and then a bud comes to reward my watching and waiting, but they are like "angel's visits, few and far between," yet they are so beautiful that if only one blossom during the winter I am more than repaid for all my care and trouble. Be more merciful toward the beautiful *Roses*, and let patience have its perfect work. The fault is, doubtless, our own. Perhaps our want of knowledge as to the best and proper mode of treating the plant renders the condition of our *Roses* unfavorable for winter; but in the summer I am never disappointed in them; from the time of the blooming of the dear old fashioned, hardy *Roses*, in June, till late in November, we have *Roses* in our garden. Early in May I plant out in a bed about thirty-five Ever-blooming Monthly *Roses* of various kinds, giving them no more care than any other bedding plant; they grow rapidly and commence to bloom about the first of July, and continue to do so even after light frosts in the fall. The flowers are of beautiful form, large and very double, delightfully fragrant, and of all the lovely shades of color found among *Roses*; indeed, they are a perfect mass of beauty and a constant source of pleasure.

I have a collection of various kinds of flowers, but none give me more, if as

much, satisfaction as this bed of Monthly Roses. Just before it freezes up, I take them up, cut off the tops within six inches of the ground, and pack them in a box of mellow soil, well pressed down, and place them near the window in the cellar, or under a shelf in our conservatory, letting them remain dormant till spring. We sometimes "fuss" too much over our plants, when to leave them more to nature would be the greater kindness to them, and would save much vexation and blaming the florist of whom we purchased our plants; in their hands, doubtless, all they promise regarding the plants would come to pass, for our nurserymen are among our most honest and conscientious business men. Lives spent among flowers are not apt to be sordid, ungenerous or deceptive; surrounded by flowers, and interested in their culture, such persons are subject to influences that help to elevate their natures and point heavenward.—MRS. A. L.C., *Sycamore, Ill.*

PLANT PROTECTORS.

Three or four years ago, in the time of autumn frosts, when some bright-leaved Golden Feathers were curling and drooping in the pinching air, a bottomless crock was at hand and was placed on one of the plants, forming a wall around it about eight inches high, carrying cold and parching winds clear over the foliage. The plant soon began to wear its natural bright and smiling look, and in order to give other plants the same advantage, I put extra hoops on some old nail and fish kegs, cut them in two, and took out the heads, and used them, also, in the same manner. Old tin pans and boilers have been since utilized in the same way, to shelter Daisies, Vinca majors, Parsley, Pinks, Snapdragons, and other small clumps of evergreen low plants during the bitter season, and with a success which compensates for the roughness of their appearance. I now save everything suitable for this use in a corner of an out-shed, and shall give each a coat of mineral paint, which will make them look 'not so bad' out in the snow, while doing duty as plant life-preservers.—W.

THE FRUIT PROMISE. — Although the spring has been wet, cool and late, yet all kinds of fruit are promising well in this region.

A HOME IN FLORIDA.

I am delighted with the beautiful and instructive MAGAZINE. I can't imagine why there are so few letters to be seen in it from this, the "Land of Flowers." Climatically this part of the state, Orange county, is an open air conservatory. The frosts being generally slight, or at any rate not severe and continuous enough to destroy vegetation, for ten months the most delicate plants are safe in the open air. Oleanders grow to twenty-five and thirty feet in height, and bloom from February to November. Geraniums and all other greenhouse plants grow from year to year until they become immense, and bloom throughout the year, with scarcely an interruption.

My home is in the midst of a large Orange grove. The flower garden is entered from the street through an avenue of Oleanders, is hedged with Rose Geraniums, with scarlet and pink Geraniums growing on either side of the walks.

I succeed well with most greenhouse plants. My verandah is wound with vines of Thunbergia and Maurandya, which are a mass of blooms continuously. I have two large Wax vines growing over the door, forming an arch, which is very much admired.

In favorable seasons we have all kinds of vegetables and strawberries, from Christmas until mid-summer. Pineapples and Citrons ripen every month in the year, though the main crop ripens in summer. An abundance of summer fruit is all that is wanting to render our county an Eden.—H.

DATURA WRIGHTII.

Uncle John tells about wintering *Datura Wrightii* in the garden. By mistake, I left several plants out during the winter of 1880-81, memorable for its severity, and what was my surprise next spring to find these plants start up with a boom, so to speak, and to blossom like the Rose at the proper time. They had no protection at all, remember, and stood on the north side of the house. At first in the spring I took them for young sycamores, coming up voluntarily, having lost all memory of their existence, the vigor of their growth and appearance of the leaves suggesting that tree. It is surely a flower worthy of cultivation.—D., *Greenville, Pa.*

MY WAX PLANT.

The Hoya that I have previously noticed, was raised from a slip, and grown in a thumb-pot five years ago next fall. It was afterwards put into a quart tin can, but it made no growth that winter, and only a few leaves the next summer. The next year it did but very little, so, that, two years ago this early spring, the whole plant measured not more than eight or ten inches. Then it was given fresh earth, but kept in the same can; it began to grow rapidly, and in May was placed on the verandah, on the west side of the house, and given a heavy cord to run on towards the south. When taken in, in the fall, the main stem measured over ten feet, not counting the windings on the string. During summer, several branches grew; a few of them were left, but the most of them were cut away.

The next February, a frost nearly killed the plant. Several feet of the main stem and some branches and all of the foliage dropped off, and the plant rested without growth, excepting a few leaves, until this spring. A short time since, two branches began to grow, and are now, April 20th, five and seven feet long. The plant is still in the tin can, and is occasionally given fresh earth. I have a young Hoya, started last August, with one pair of leaves, which grew three pairs of leaves on close joints during winter, but now is growing at the rate of six inches a week, by actual measurement, and I expect it to do better as soon as I can put it out of doors.—R. A. H.

HOW I MANAGE MY ROSES.

MR. EDITOR:—Will you let me tell Annie W. how I managed with my Rose bushes? Her experience was so much like mine that I could not help laughing when I read it.

I said that I would not try to grow any more Roses, but woman-like, I changed my mind. Last spring I bought two Tea Rose bushes, and set them out in the garden, in good soil. I would not let them bloom at all; just as soon as I saw a bud I picked it off. They grew finely, and in the fall they were nice large plants. I potted them and set them back, and when the weather was too cold for them to stay out of doors, I put them down cellar. In February I brought them up and gave them a good watering, and set

them in a sunny window. They began to leave out in a week, and as soon as they were fairly leaved out the buds came. This time I let them bloom. I wash the leaves every day or two, and they are nice-looking plants now. The Roses are lovely. I do think that for once I have had good success with Roses.—S. E. T., *Pittsfield, N. H.*

TEAS AND PERPETUALS.

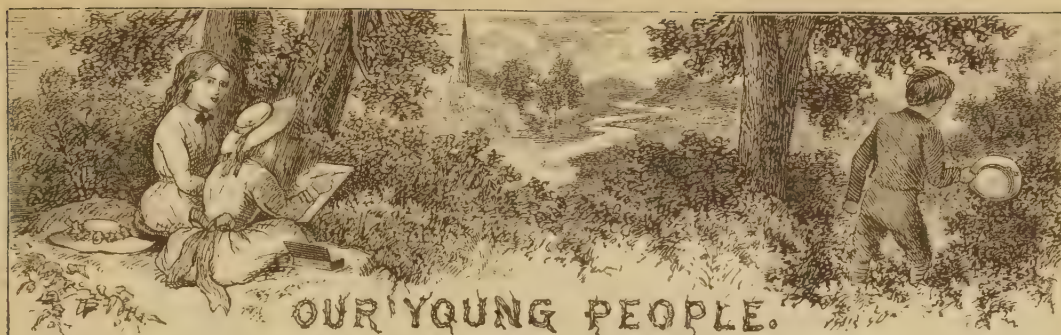
I notice that a number of dealers classify La France, Captain Christy, and others of the Hybrid Teas among the Hybrid Perpetual Roses. Old rosarians may understand this, but to amateurs, such a classification is misleading, since a Hybrid Perpetual Rose is supposed to be hardy, while a Hybrid Tea is not, in the full sense of the term, hardy. The plants classed together would be treated alike, and of course, the Hybrid Teas would be endangered in a severe winter. While all Roses are better for winter protection, the Hybrid Teas really demand it.

For another reason these classes should be kept distinct. The Hybrid Teas are the real perpetual bloomers, while the Hybrid Perpetuals are only sure to bloom once a year.—D.

GERANIUMS FROM SEED.

MR. VICK:—In looking over the MAGAZINE for 1880, I see on page 215, a statement in regard to Geraniums from seed; it is said that they rarely reproduce their kind. Such is not my experience. Three or four years ago I saved seed from an ordinary pink, single Geranium. I had six or seven fine, healthy plants. I gave two to a friend in the neighborhood. In due time they blossomed, as did two that I kept myself. All were exactly the same as the parent, both in form and color. The remaining plants were sent to a distance and I did not hear how they turned out. It is my intention to try again.—M. J. McA., *Dartmouth, N. S.*

PHLOX FOR HANGING-BASKET.—I wish to say to your readers that Phlox Drummondii makes a beautiful hanging-basket. A friend here has one that has been full of blossoms all winter. It had over a hundred flowers open most of the time, and only one plant taken up in the fall.—MRS. N. M., *York, Neb.*



OUR YOUNG PEOPLE.

UNDER THE PINES.

"Under the greenwood tree,
Who loves to lye with me,
Here shall he see no enemy,
But winter and rough weather,"

— *As You Like It.*

But it is no rough weather that we shall meet this fair summer day, if my young readers will come with me; not that the forest is not as lovely in its unsullied garment of pure white snow as when clad in its robes of refreshing green, when

"The young leaves are dancing in breezy mirth."

Beauty is spread abroad over all nature if we will open our hearts to receive it, for, is not beauty a manifestation of God's love to man? Let us enter this fresh path among the Maples and Beeches. The light, semi-transparent leaves are quivering in the soft, balmy breeze, as the sunlight comes down from above and casts moving shadows on the dark mould below. Look around and mark the endless variety of colors and graceful forms of tree and shrub and leaf and flower. The earth is teeming with luxuriance, and one might fancy her to be almost conscious of all the vegetable treasures that she has brought forth and nourished.

Besides the Maples and Beeches here are stately Oaks of several kinds, the leafy Basswood, with its drooping, creamy flowers filling the air with subtle fragrance. The Almond-like scent of the Black Cherry betrays its presence not far distant, or is it an exhalation from the bark and buds of the Sweet Birch that mingles with the more distant evergreens, or those sweet Pyrolas, that some call Lilies of the Valley, forming low beds of verdure with large spikes of pale blossoms? The pretty hop-like blossoms of the Hornbeam, or Ironwood, and the Blue Beach have their attractions, and the rough cases of the real Beech trees are

giving a mossy aspect to their slender branches, a promise of food to the Squirrel, the Ground Hog, the wild Pigeon and the Wood Duck, with many of the smaller tribes of the denizens of the forest. These creatures all know the time of the dropping of the glossy coated, three cornered nuts, and gather in their winter store.

How deep the silence in these leafy forest glades! We tread softly as if unwilling to break the utter stillness that prevails around us; this seems holy ground. Here is an old worn pathway, left long since by the chopper; it leads us onward till we stand beneath the Pines. We enter the grand, old, solemn, pillared aisles with a mute feeling of reverence toward Him who called them into existence. Those stately trunks with their dark plummy heads towering so high above us seem fit roofing for a temple in which to lift up our hearts in worship and praise. And, hark! through those myriad strings swells music as from Æolian harps, swept by the sighing wind. Are there not melodies in ocean, earth and air, unheeded by our ears, but heard by unseen spirits going forth on their ministries of love? Not many living things are seen to crowd our path in these dim solitudes, unless by chance we disturb some black or red Squirrel, which darts up the thick furred bark of a huge Pine in swift gyrations until he reaches some dead branch or projecting knot midway, while he stops to look down upon us, and expresses his anger or fear at our unwelcome intrusion on his solitary haunts by sharp scolding notes and exhibitions of his ruffled, furry tail, a little banner of defiance. But, listen to that low, soft, whispered note; it is from a very tiny bird that flits from bough to bough; it may be one of the little tree

creepers, a *Certha*, or a *Sitta*, gentle little birds that live among the cone-bearing forest trees, gleaning their daily meals between the rugged chinks of the bark of the Pines and Spruces. As they flit to and fro, they utter a low note which would pass unnoticed except for the silence that reigns around us. We call this little bird of the Pine forest "the Whisperer," not knowing its proper name. There are many of these dear little tree creepers that, in the early days of spring, may be seen close to our orchards and gardens, following their vocation of insect hunting. Some of them will come even close to the house and run along the lichen-crusted garden fence, so diligently occupied with their labors that they are insensible to the watching eyes that are regarding their swift movements.

Though there is less luxuriant growth of herbage beneath the Pines, yet some rare and lovely plants take root and flourish there that do not grow under the hard wood trees. Among these may be noticed some of those lowly evergreen plants, known by the common name of "Wintergreen." Here is the beautiful *Chimaphila umbellata*, the Pipsissiwa of the Indian herbalist, known by our settlers as "Rheumatism Weed." Surely, a lovelier plant earth bears not. Mark its dark, glossy, serrated leaves, its rosy-tinted stalks, and pale pink, waxen flowers. Within the hollow petals lie the amethyst-colored anthers, surrounding the ribbed, turban-like stigma of emerald green. No one can look upon this exquisite flower without delight and admiration. If the ground inclines to be rocky, we may come upon a bed of the Trailing Arbutus, the sweet May Flower, with its clusters of fair pink bells and gummy, fragrant stalks and oval leaves. The whole plant is odorous, and should find a place in our gardens and rockeries, for it is of a trailing habit, and loves to throw its slender branches over rocks and mossy stones. Here, creeping over roots and little hillocks, as that kindly little, dark, round-leaved evergreen, the scarlet, twin-berried Partridge berry, with its white, starry blossoms, united at the germen, two lovely blossoms on one little stalk. The Indian women and children eat the ripe, mealy berries, and say, "good to eat," but to our taste they are flavorless, and we value them only for their beauty.

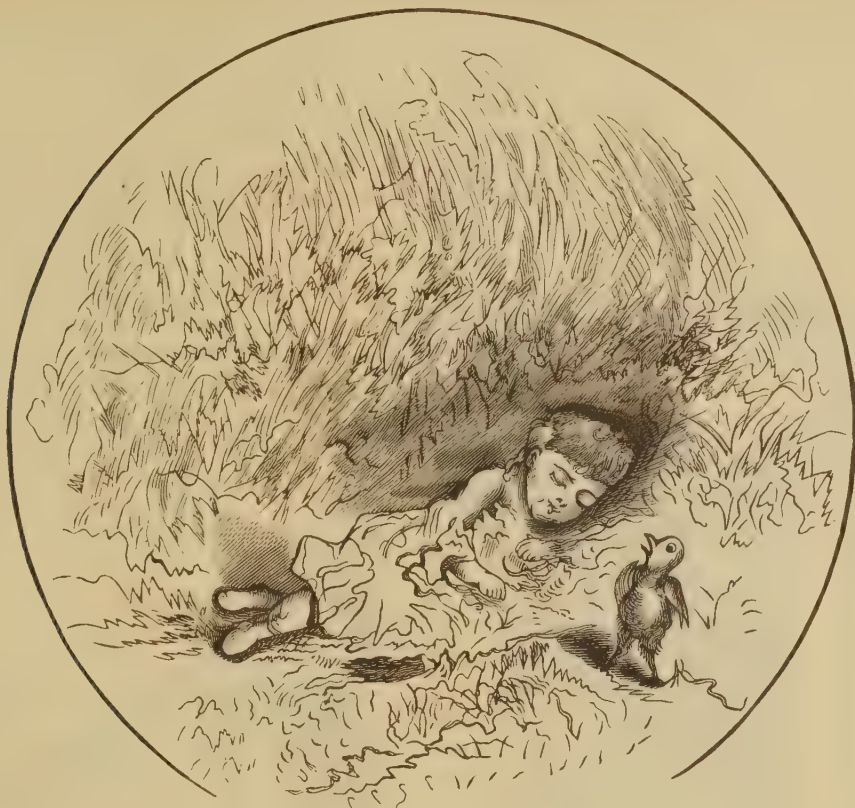
Here is, also, the pure white, waxen berries of that rather rare, little, creeping Wintergreen, *Chiogenes hispidula*, the Creeping Snow berry, that trails along the ground in damp, mossy spots, with its wreaths of tiny myrtle-like leaves, which would be a rare garland for a lady's hair; but these natural ornaments are priceless or unknown.

At the roots of that gnarled old Hemlock tree is a cluster of Orchids, presenting nearly a dozen upright, leafless spikes of flowers, of a pale fawn color striped with rich crimson lines. There are no leaves proper, but the round, fleshy scape is clothed with thin, silvery scales. There are other Orchids scattered here and there, green, brown, yellow, all curious in the form of the petal. Another member of this rare family is the pretty, pearly-lipped "Rattlesnake Plantain", with its variegated leaves of velvety texture, all marked with milky veinings.

I must not weary my little forest pilgrims with more descriptions of rare plants to be found under the Pines, and so will say, good bye.—Mrs. C. P. T., *Lakefield, Ont.*

EVERY DAY STUDIES.

The great poet GÖETHE once said, in effect, that we ought every day to hear a little song, to read a good poem, to see a fine picture, and if it be possible to speak a few reasonable words. Certainly, this is a very pleasant arrangement, and one which, if followed, would greatly elevate and refine us; if, however, we may not always hear the song, read the poem, or see the picture, we may every day read some beautiful lesson from Nature's ever open book. We may notice something particularly in regard to some animal, some insect, or some plant; we may notice their forms, their various organs and their uses. We may talk about these things to each other and thus be mutually helpful. We may at least hear the song in the music of the birds, the gurgling of the brooks, the playing of the breezes through the leaves of the trees, or the waves as they break upon the shore. The picture, may we not see it everywhere? The field, the forest, the stretch of water, the sky by day with the ever varying clouds, or by night with the changing moon and thousands of brilliant orbs that present themselves to our wondering gaze.



THE CHICKEN KNEW.

Where is the baby? I have searched
 The orchard through, he is not there,
 And Phebe Bird sang, "Phebe has
 Not met the darling anywhere."
 I've looked where down the hill the brook,
 In sunshine dancing, takes its way,
 A spotted Frog croaked "Ugh! kerchunk!
 He never called on me to-day."
 And in the garden I have sought,
 Among the pretty, fragrant flowers.
 "Thum," buzzed the Bee, I've seen him not,
 Though I've been here for many hours."

Now in the barn-yard, "Cow," I ask,
 "Have you a red-cheeked baby seen?"
 The Cow chews slowly, "Moo-oo-oo,
 I saw him run across the green,
 And creep beneath the meadow fence."
 "He's here," a Chicken said, "Peep-peep,
 A rosy apple in each hand,
 Under the hay stack, fast asleep."

—MARGARET EYTINGE.

LITTLE BUTTERCUP.

It was not worth while to take a second thought about it. As soon as you laid eyes on curly-pated Buttercup you knew she was a darling. When her lovely young mother closed her eyes on earth, and the child was taken to grandfather Fielding's, her big-boy uncles, Matt and

her uncles to amuse her into forgetfulness. From that time she proved a sunny beam of gladness in the household. She suddenly found a world full of things to be learned, and the first series lay in the new home, right around her. Her eyes took the lead, and her feet followed after, until not a nook or corner of the house was left uninspected. Then, too, each impression caught by eye and ear found voluble transit from her tongue, until that little member was kept in such a state of activity as simply to astonish those big-boy uncles. So they called her Magpie. But who is this interrupting my story?



Jo—almost men—took her into their hearts the more warmly because she was now all they had left of their only sister.

The Fieldings were Friends, and the little one was a name-sake of the grandmother—Ruth. It was well-known to the villagers that the names of the worthy brothers whom they so recklessly called Matt and Jo, were carefully called Matthew and Joseph by their parents, because of their bible origin, which was of course quite reason enough.

After a few days of most pitiful baby-sorrowing and pining, little Ruth allowed

O! you thought her name was Buttercup, did you? Well, that is her name at present, by reason of the "survival of the fittest," if you know what that means, and if you don't, ask somebody. The third naming came about in the most natural way in the world. It was soon discovered that little Magpie was very fond of her grandmother's winter flowers. She cared nothing for the plants, but the blossoms gave her intense delight. She would touch them softly with the tip of one finger, coo over them in the most bird-like way, peer around them from

side to side, over and under, and feign to kiss them, but never disturbed a petal. Never but once. Was she not a darling?

One day as Jo watched her standing on chair, tilted to the utmost on her toes, with her speck of a nose buried like a bee in a blossom, he remarked:

"Well, it's very evident that she is not color-blind."

"Humph!" retorted Matt, "catch a woman color-blind!"

"There are cases recorded," said his mother, "of women who were quite unable to distinguish colors." Then she continued; "I thought, as I looked over our meeting last First-day, and marked the gaiety of apparel, and the departure from plain colors among our young Friends,—especially as displayed in the house of worship—that it would not be strange if color-blindness were to come upon us as a people. Surely, from published reports it is greatly on the increase."

Matt was too sensible to argue a point with his mother which he knew was one of principle with her. The greater part of her life had been spent exclusively with her own people, and her ideas had become fixed. But as he stooped to kiss the dear, serene-faced woman, he pointed to a crimson Tea Rose, and asked her how the Deity came to put such gorgeous hues on the flowers. Her answer was ready: "To show us, my son, that they belong there, and not on our persons."

At this moment a tramp was announced at the back door, and Magpie scrambled from her chair and trotted after uncle Matt, lest anything worth seeing should escape her attention. The poor fellow was covered with many layers of rags to protect him from the cold, and scarcely looked like a human being. The child gazed at him in dismay and pity for a moment, and then rushing back and securing the largest bunch of blossoms in her reach, she approached the poor wretch as nearly as she dared, and laid it on the floor, exclaiming: "There!" Then returning as swiftly as her feet could take her, hid her face in her grandmother's lap. Mrs. Fielding soon put her gently to one side, and passing out, gave the man a huge sandwich, bidding him warm himself while he ate it. Magpie had shyly followed to the door, and his eyes constantly glanced from the child to the

flowers, and he seemed scarcely able to swallow his food. What, O what was he thinking about? Could such a man have feelings? When he was ready to go, Mrs. Fielding said:

"Take those flowers with thee; they are thine; and remember that a beautiful being, as pure as an angel, gave them to thee of her own free will. Never before has she plucked one of those blossoms without direction. May the memory of her innocent desire to do thee some good help thee toward a better life. There is the same heaven for you both."

The poor man was completely broken down. There were tear-drops on the floor, whence he had taken the flowers, and as he passed out, his brawny frame seemed shaken with emotion. For some time Magpie did not seem satisfied with her effect to better the man's condition, and asked:

"Did he like the flowers, grandmother? what made him cry? Was he sorry 'cause his clothes were all tored and mussed up?" and other questions by the dozen, until her anxious heart had opened its surplus of feeling.

Of course, during the winter Magpie was introduced to the different neighbors around, and soon became a pet with them all. Some of them had such floral attractions as quite ravished her heart. Professor Banning—next door—had an enormous basin of galvanized iron, twelve inches deep, set on a shapely block, with broad iron castors underneath, and made to fit the semi-circle of his large bay-window. This had been studiously stocked with plants that kept up a succession of bloom. Professors are apt to have hobbies, and this movable garden was one of them. Of course little Magpie vibrated around its rim at every opportunity. But no collection of plants held her so spell-bound as those of Mrs. Fritz, the brawny German woman whose rickety house and crazy-looking garden were just around the corner. Everything grew that she touched, though the plants had a general appearance of having been pitched into the boxes and broken mugs in the most reckless manner. In summer they were stocked in tiers around her doors, with bits of vines and trailing things stuck here and there, to form drapery, when directly after there were banks of green and bloom, thus render-

ing herself the alternate disgust and envy of the precise Professor. She gave away seeds, roots and cuttings, with the greatest complacency, well knowing from experience that nothing would be produced like her own. Fond as she was of flowers, not a foot of garden space would she give to them; for she was fond of cabbage, too; and the odor of its cooking was forever within her doors. In the only good room of her house she massed her plants in winter, leaving space in the center for a tiny fountain, which she turned on and off at pleasure. Its source was a tank, shaped around two sides of the chimney, in the attic above, and supplied with water—no mortal knew how, as no method of entrance above was visible, save a closely-covered scuttle-hole. But Mrs. Fritz kept a ladder, and ladders are easily kept—they don't eat cabbage.

In early spring the fascinations of the place proved too great, and Magpie made frequent visits to Mrs. Fritz by stealth, until her grandmother found she must put a stop to such truancy. So she followed her one day with a satchel of clothing, leaving a corner of a favorite apron just visible. Entering the yard, she walked past the child without speaking, and stepping up to Mrs. Fritz, and giving her the wink, said:

"Our Magpie seems so fond of being here that I have come to ask if thee will keep her all the time for thy own little girl? Here are her clothes."

The child had stood quite still, looking and listening, but waited for no answer. Instantly her feet flew out the gate and beat a swift tattoo around the corner, while Mrs. Fritz held her sides with laughter as she listened. And this was the cure. She never played truant again. Never but once.

As the summer advanced, she one day saw some buttercup blossoms for the first time. From that hour, all other flowers lost favor in her eyes. No one would traduce her favorites, neither could they get an intelligent reason for her liking. Her grandfather, her uncles and the school-children brought them to her from country places, having learned how best to please her. She carried them about with her all day, and took them with her to bed at night. No matter how wilted or forlorn they looked they were

lovely to her. Finally, in the midst of this mania, she was found missing one evening about sundown. She had been seen within the yard, peeping through the fence, just after the last of a train of gipsy wagons had gone quite past. So the gypsies hadn't got their darling! No; but their darling had got the gypsies! Mixed with the cut grass at the end of the last wagon, she saw golden buttercups. Stepping into the street she saw the wagons stop for camping in the common beyond. She at once started forward, and the general tea-hour of the village favored her escape. But when at last her foot-prints were discovered in the dust of the street, they were swiftly followed up until she was found standing near a horse, pulling the yellow blossoms from under his nose while eating, and a group of gypsies standing around her grinning.

From this time forward she has been called Buttercup.—AUNT MARJORIE.

NEW PUBLICATIONS.

Transactions of the Indiana Horticultural Society for the year 1881, by W. H. RAGAN, Secretary. W. H. BUFORD, Indianapolis, Ind.

Among much other valuable matter contained in this volume is a revised Table of Fruits recommended by the Society for the different parts of the State. This Table is of great value to all who raise fruit in Indiana.

Transactions of the Illinois State Horticultural Society for the year 1881, by O. B. GALUSHA, Secretary, Morris, Ill.

The papers particularly noteworthy in this volume are those of Dr. WARDER on forest trees adapted to the soils and climate of Northern Illinois, and Prof. T. J. BURRILL on Bacteria and their effects, with illustrations, and Prof. G. H. FRENCH on Raspberry and Strawberry Insects. The perusal of these writings is advised to all seeking information on these subjects.

Bees and Honey; or, The Management of an Apiary for Profit and Pleasure, by THOMAS G. NEWMAN, Editor of the "American Bee Journal," Chicago, Ill. Price in cloth 75 cents; paper 50 cents, postpaid.

The third edition of this work has been carefully re-written by the author, for the information of the many who are now becoming interested in the pursuit of bee-keeping.

